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**Master in Professional Studies
(Learning and Development)**

**An Investigatory Inquiry into the Online
Nutritional Therapy Experience and the Potential for
Enrichment using Action Research**

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Project Summary

This Project aimed to explore the experience of first year nutritional therapy students at ION and to work with them to identify initiatives to improve their experience. Students in both the first and second semester of year one were recruited via the ION VLE using a purposive sampling approach to ensure a mix of pre-defined socio-demographic characteristics.

A two phase methodology was employed. In phase one a phenomenological approach using semi-structured interviews was adopted to benchmark student experience. In phase two an action research (AR) orientation with three cycles enabled myself to work with students in action sets to explore ways in which ION and ION students were able to take action to improve online student experience.

In total 10 participants were recruited (7 from the February 2018 cohort and 3 from the September 2018 cohort). Data was analysed using thematic analysis for phase one and first and second person reflection for phase two. Analysis of transcribed phase one data identified three key themes relating to student experience, namely; *Peer Interaction*, *Support and Guidance* and *Format and Resources*. These themes were then taken forward as topic areas for each group to stimulate the generation of initiatives to improve experience in phase two.

Findings from phase one revealed that all three of the identified themes were important to the online nutritional therapy student experience at ION. Of the three themes, nearly all students considered that more peer interaction would be beneficial, whereas students were divided regarding their views on the extent to which improvements in other areas were needed. Student satisfaction levels varied amongst participants. Higher satisfaction levels were correlated with younger students and with other factors such as completion of the Nutritional Therapy Science Access Course and / or higher self-regulatory or technological skills

In phase two a Nominal Group Technique (NGT) was used to generate and vote on initiatives to improve experience. A total of 48 ideas were identified and students voted on their top 3 'quick – win' ideas at the end of each session. A number of initiatives were implemented during the project including a student attendance day, updates to module areas, a questionnaire to understand student and meet up preferences and tutor use of webcams. Although student participation in action did not reach desired levels, students reacted favourably to implemented changes, reported increased motivation and demonstrated some learning from their involvement

1. Introduction

1.1 Background

Within higher education there is a key trend towards the increasing use of educational technology and multiple learning formats to cater for different audiences (Robinia and Anderson, 2010). Online and blended courses are growing substantially in popularity (Bawa, 2016) derived from a push “to provide quality education to all students, regardless of location and time” (Chaney, 2001 P.21.). Such courses provide students with flexibility enabling them to study at a time, place and pace that fits in with other life commitments (Gilbert, 2015). This creates opportunities for non-traditional students and those living at a distance who would previously have been excluded from study opportunities.

Despite the popularity of online course offerings, there is substantial evidence to suggest that online students are less satisfied with their learning experience than their attendance counterparts and that this dissatisfaction is linked to higher drop- out rates (Laing and Laing, 2015). Reasons for drop out amongst online students are numerous and include a variety of social, technological and motivational causes (Bawa, 2016).

Student attrition is important because it has significant consequences for training providers, individuals and society as a whole. The impact on institutional finances and reputation are well established (Beer and Lawson, 2017), but it is essential not to forget the consequences of attrition for students themselves, as they encounter disappointment, as well as disruption to their education and its resultant impact on their career plans and self-esteem (Urwin *et al.*, 2010)

Since all online and blended courses are different in their structure and composition, the aspects of the online experience are context specific and learnings may not fully translate to other settings. As Head of Courses for a leading nutritional therapy training provider I am interested in what can be done to improve the online experience of my students. This paper therefore outlines a research study completed within my workplace at the Institute for Optimum Nutrition.

1.2 Context

The Institute for Optimum Nutrition (ION) is a small registered charity with around 30 salaried employees established nearly 35 years ago with the primary purpose of providing quality training to nutritional therapists. ION holds a unique position in the sector as it was one of the first organisations to provide nutritional therapy education. It is renowned for the quality of the training it provides and has a reputation to maintain within the profession as an innovative and forward – thinking training provider.

As Head of Courses with responsibility for maintaining and developing the nutritional therapy diploma course (NTDC) offering, I am tasked with ensuring that students are satisfied and go on to become skilful nutritional therapists who achieve great clinical outcomes. Due to the nature of the work that nutritional therapists do, students need to develop strong problem solving skills and must learn to become independent thinkers

The course offered is a part-time level 6 diploma (NTDC) which can be taken over a period of three to six years with options to suspend, slow down study or change study mode. The course is well established and respected within the profession and has obtained accreditation from the Nutritional Therapy Education Commission and the British Accreditation Council.

The profile of nutritional therapy students is non-traditional with an average age of 31-60 (Benbow *et al.*, 2017). Students are often working either full or part time and many have children and/or elderly parents to care for. Additionally the nature of the subject area studied means that a number of students have personal health issues. Students are often time-poor and frequently underestimate the time commitments of the NTDC. Although some students have completed ION's Nutritional Therapy Science Access Course, many have not studied for many years, lack the requisite academic skills and join with expectations about education and their own abilities formed from earlier experiences. As students are mostly self-funding they also have high expectations of the course.

The NTDC is offered in two formats differentiated by the level of attendance. For so called 'attendance' students, teaching takes place over ten weekends a year in central London held at monthly intervals during the academic year. Additionally in the final year, students are required to attend clinical sessions at ION's head office in Richmond where they perform supervised consultations with clients in order to display clinical competency. In-class teaching is supplemented by independent learning in between weekends which takes the form of guided reading, interactive e-units, webinars, assignment preparation and virtual group work

In January 2013, ION introduced an 'online' version of the popular diploma course (NTDC) enabling non-local students and those preferring the convenience of studying at their own time and place to also qualify as nutritional therapists. The online course has undergone a number of changes and now comprises recordings of lectures from the attendance groups as well as the other attendance course elements described above. In addition, online students are required to attend on three occasions throughout the three year course; in year two they attend a two day workshop to learn the clinical skills needed to be a nutritional therapist and in year three they attend for two blocks of three days to undertake their clinical consultation work within the ION training clinic.

The number of students, enrolling on the online NTDC has steadily increased since the format was introduced and in 2017 online enrollers outnumbered the attendance course for the first time (see appendix 1). Online students however report lower satisfaction ratings than attendance students in learner surveys and drop out more frequently (see appendix 2). The revenue loss to ION of a student not progressing beyond the first year is significant at between £4,500 and £9,000 depending upon time of withdrawal. Recruitment of new students is expensive and competition is strong amongst training providers. Student retention consequently forms part of ION's strategic plan and is one of my key performance indicators as Head of NTDC courses. This makes it vital that the organisation has a strong understanding of the online NTDC experience and that actions can be swiftly implemented to improve experience as needed.

1.3 Overview of the Study

Given the considerations above, the purpose of the study was therefore to ensure that online NTDC students at ION are not disadvantaged in comparison to their attendance counterparts. The project investigated both the positive and negative aspects of studying online at ION, aimed to understand how the online experience differed from that of first year attendance students and to explore what ION and online students could do to address any perceived disadvantages in experience.

As Head of Diploma Courses at ION since 2012, my experience uniquely equipped me to conduct this study. I am a nutritional therapist, remote student myself, have worked closely with nutritional therapy students and have commissioned qualitative and quantitative research to understand their sentiments regarding the ION training provision. This means that I have an excellent understanding of my research area. My 'insider' status, however, is also associated with some disadvantages which are discussed in chapter 4.

The ensuing chapters set out the knowledge landscape, followed by details of the methodology, project activity and findings, outcomes and recommendations and project reflection.

2. Knowledge Landscape

2.1 Introduction

In order to understand the current insights relating to the experience of online versus attendance students, this chapter considers recent qualitative and quantitative primary studies and literature reviews concerning the advantages and disadvantages of online learning. As research into online nutritional therapy training is largely unavailable, the review focusses on general higher education studies and evidence from similar fields such as nursing and social sciences. Internal student research surveys and feedback from ION Student Staff Liaison Committees are also considered. An overview of online learning is provided, followed by an introduction to the issue of online student satisfaction and drop out and a review of the key factors influencing the online student experience

2.2 Overview

Research into online learning dates back to the 1980s (Harasim, 2000), however as (Guri-Rosenblit and Gros, 2011, p.471) conclude, “Most e-learning research is sporadic and scattered in nature, and quite often yields contradictory findings.” This may in part be caused by the immaturity of online learning, confusion around the use of terminology and by differences in format and context (Tallent-Runnels *et al.*, 2006; Guri-Rosenblit and Gros, 2011)

Online learning offers opportunities for flexible student-centred learning that is cross-border, self-paced and self-directed (Zhang and Cheng, 2012). Online courses attract a wider age range than traditional courses and learners can study at institutions geographically separated from where they live while collaborating with students from a variety of cultural backgrounds (Koutsoupidou, 2014). The absence of scheduled class-times means that students with competing commitments such as family or work responsibilities can fit study requirements around other duties (Hannay and Nevine, 2006). These advantages appear to be particularly important to older students who are more likely to select online courses than their younger counterparts (Oguz, Chu and Chow, 2015)

2.3 Student Satisfaction and Reasons for Student Drop Out

A number of studies examining course satisfaction in online learning have found that students appear to be less satisfied than students learning via a face to face modality (Roach and Lemasters, 2006; Tallent-Runnels *et al.*, 2006; Allen, M. *et al.*, 2004) and that they are more likely to drop out (Heyman, 2010). Authors have identified a range of different factors including the absence of interaction with peers and faculty; issues with motivation and self-regulation and problems with technology. (Park and Choi, 2009; Sun and Rueda, 2012). These factors are therefore explored further below

2.3.1 Interaction

Constructivist learning theories suggest that learning happens in real-life contexts and as a result of interacting and collaborating with others (Chen and Bryer, 2012; Genevieve, 2005). At ION, feedback from Student Staff Liaison Committees and surveys (appendix 3) concurs with a large body of literature highlighting the importance of adequate interaction with

students and tutors as necessary for student satisfaction and retention (Rovai and Wighting, 2005). The significance of tutor to peer interaction is broadly accepted (Sher, 2009) (Strachota, 2003; Bollinger and Martindale, 2004) whereas some studies have concluded that peer to peer interaction may be less critical for satisfaction (Strachota, 2003)

In comparison to traditional classroom settings, online students and tutors are geographically dispersed making interaction more challenging. Moore's transactional distance theory (Moore, 1973; Moore and Kearsley, 1996) suggests that geographical distance creates a psychological distance between tutors and learners. This distance it is argued, thwarts the development of a relationship between student and tutor and can make students less willing to reach out for help (Baker, 2010).

Moore's theory purports that the distance in online learning can be bridged by appropriate tutor interaction. Whilst this theory is logical it is not always easy to achieve in practice (Credence Baker, 2010). Communication in the online environment is often asynchronous and non – visual leading to time-delays and the absence of the normal meaning-making codes such as facial expressions, voice tone and inflections, gesture and body language (Delahunty, Verenikina and Jones, 2014). This style of interaction is at odds with transformational learning theory that claims that immediate feedback from professors and peers is necessary for learning (Mezirow, 2000; Allen, 2016)

It has also been noted that many tutors have not received appropriate support to teach in the online environment (Keengwe, Kidd & Kyei-Blankson; Li and Irby, 2008). The immediacy construct proposed by (Mehrabian, 1971) relates to physical and verbal behaviours designed to reduce the distance between tutors and their students. It has been suggested that verbal immediacy behaviours such as asking questions, starting discussions, providing scaffolding, using student names, giving feedback / praise and demonstrating attentiveness can be usefully employed within the online environment, but tutors need time and training to effectively use and integrate such behaviours (Delahunty, Verenikina and Jones, 2014)

Student to student interaction is also more challenging online. Meyer (2002) observes that learners in a face- to- face environment usually greet each other as they arrive, or make conversation before class starts. In an online environment, informal conversations are harder to instigate, as students are not privy to the visual signals that provide information about whether an individual is approachable. Additionally if students are studying at different times then the collegiate experience of working together is absent (Andresen, 2009)

Online asynchronous communication does however confer certain advantages. Students can exercise some control over how they present themselves; can produce deeper, more considered responses and can remain physically anonymous (Comer and Lenaghan, 2013). This can have an equalising effect removing inevitable judgements based on attributes such as age, appearance, smell and perceived affluence and removing the need for real-time conversational skills (Kiesler, Siegel and McGuire, 1984). Additionally, students need not feel disadvantaged by the visual reminder of student friendship groups that they are excluded from. (Arasaratnam-Smith and Northcote, 2017).

At ION, synchronous text communication (instant messaging) and live synchronous video sessions (recorded for non – attendees) have been used to improve interaction amongst students and tutors. These initiatives have however, encountered issues also highlighted in the literature such as inadequate student participation due to technical problems (McBrien, Cheng and Jones, 2009) competing time commitments (Chundur and Prakash, 2009; Falloon, 2011), differing time zones and confidence interacting in the live environment (Phirangee and Malec, 2017)

Some authors have attempted to improve community and social presence with mixed results by introducing initiatives to encourage students to engage with their studies and to work together. These include orientation and ice-breaking activities (Laing and Laing, 2015) authentic tasks, reflection, self- assessment (Lister, 2014), peer review (Misanchuk and Anderson, 2001), problem – solving activities (Servan *et al.*, 2009) and compulsory participation in forum activities (Pelz, 2010).

The importance of addressing issues relating to interaction cannot be understated because in addition to their impacts outlined above, they have been shown to directly influence learner motivation and self- regulation which are discussed below

2.3.2 Motivation and Self-Regulation

Self-regulation and motivation have been established as two key ingredients associated with success in online learning (Matuga, 2009). Self- regulation can be defined as being able to systematically manage personal learning activities for the successful achievement of learning goals (Schunk and Zimmerman, 2011). Learners exhibiting self-regulatory skills are able to effectively manage time, review course materials regularly, seek help as needed and use metacognition to reflect on progress (You and Kang, 2014). By comparison, students who are less self-regulated are less organised, have a tendency to procrastinate and display less cognitive and metacognitive strategies to meet learning goals (You and Kang, 2014). In the online learning environment, self-regulation is more challenging for students due to limited teacher and student interaction (Paepe, Zhu and DePryck, 2018). In the absence of scheduled class times, online learners are expected to direct their own learning, to decide when and how to study and must develop the skills and confidence to ask for and accept assistance (Plowman, Anderson and Douglas, 2017).

Evidence from student surveys at ION (appendix 3) and from online studies indicates that many online students do not possess the requisite skills (Cho and Kim, 2013). Reasons cited include earlier educational experiences, poor self – efficacy and goal orientation (Sansone *et al.*, 2011).

Although Self-regulation was originally considered an individual cognitive - constructive activity (Zimmerman and Pons, 1986), more recent social cognitive and social constructivist theories emphasise the co-construction of self-regulation knowledge through social contact (Patrick and Middleton, 2002). As (Hadwin and Oshige, 2011) argue, self-regulation can be successfully demonstrated through modelling by peers and tutors. At ION, tutor-scaffolding strategies have been usefully employed however; student feedback suggests that more can be done to help in this area (appendix 3).

A central aspect of self-regulation is motivation (Gilbert, 2015; Sansone *et al.*, 2011). Students must be motivated (either intrinsically or extrinsically) to deploy self-regulatory skills in order to confer success within the online environment (Matuga, 2009). This can be challenging for online students as social isolation decreases student motivation (Crampton and Ragusa, 2015). In addition, online learners frequently underestimate the time commitment involved in their study (Kahu *et al.*, 2013) and may have in fact chosen an online format because of other competing commitments (Bawa, 2016). There is also evidence that motivation for study may wane if a student believes that they are not adequately achieving within the online environment (Chaney, 2001)

2.3.3 Technology

Technology issues have been cited in a number of studies exploring the factors influencing satisfaction with online learning (Tyler-Smith, 2006; Palmer and Holt, 2014; Ke and Kwak, 2013; Rushby, 2013; Song *et al.*, 2004; Kirkwood 2015). Song *et al.*, (2004) in fact found technology to be the second most important factor impacting on satisfaction with the online experience and Bawa (2016) notes that attitudes towards technology can impact on motivation for learning which in turn can affect the likelihood of a student to persist with study. Additionally Gilbert (2015) observed that successful students have stronger technical skills.

Although theoretically technology enables online study, proponents of technological determinism argue that technology is often embraced without consideration given to pedagogical needs (Kear *et al.*, 2016). It must be acknowledged that Web 2 applications such as Wiki's, forums and social networks do support a constructivist approach to learning by enabling students to collaborate with each other. The success of such collaboration, however depends on shared time zones and on students having the time, internet bandwidth and technical skill to use the relevant tools (Bawa, 2016). Additionally Kear *et al.*, (2016) points out that this new way of working is undermined by students who are uncomfortable interacting with peers that they do not know and harbour traditional ideas of the tutor as expert.

ION students are mature students and have an older profile than traditional students. Prensky, (2001) coined the label 'digital immigrants' to differentiate students who grew up in the digital age versus those who didn't. Recent studies have shown that the differences in technology use between older and younger students have been exaggerated (Kirkwood, 2015). Notwithstanding this, there is still evidence to suggest that some older students may be less technically competent and confident than so called 'digital natives' (Jones and Bayen, 1998). If technology competence is low then this it has been argued (Ke and Kwak, 2013) increases cognitive load and reduces resources designed for higher –order thinking.

Bollinger and Martindale (2004) suggest that faculty should provide structured orientations and remind students about the technological support that is available. A key issue though is that as Bozarth, Chapman and Lamonica (2004) identify, student misconceptions about their own technical expertise mean that they don't always realise the necessity for online orientation until it is too late. Additionally as (Bawa, 2016) argues, faculty themselves often do not have the skills or expertise to help in this regard and require training to improve their

own competence. This is also the case at ION where real-time synchronous sessions are often impacted by limited staff understanding of the applications used and by issues with the technology itself.

2.4 Conclusion

Despite an enormous body of online learning knowledge, the question of how to ensure that online learners are not disadvantaged is still a pressing issue. Although some studies cite improvements in attrition and course completion (Shea and Bidjerano, 2014), others continue to report ongoing problems despite interventions to address these issues (Jordan, 2014; Khalil and Ebner, 2014). Qualitative feedback and attrition data from ION indicate the need for more research in this area. Key questions are, how satisfied are online students at ION? How do they feel about the course format and resources? How well are student interaction and support structures working and what more can be done to improve the online experience? This brings me to the primary purpose of my research that is;

How to enrich the experience of individuals studying at a distance.

The next chapter will set out the methodology and methods used to meet these research aims and objectives

3. Methodology

3.1 Introduction

Research methodology is a “strategy or plan of action that shapes our choice and use of methods and links them to the desired outcomes” (Baum, MacDougall and Smith, 2006 p.854.)

This chapter sets out the methodology designed to achieve the outcomes of this study and considers research philosophy, design, methods of data collection and analysis, ethics and reliability and trustworthiness.

3.2 Philosophical Approach

A discussion of research philosophy is important within a methodology chapter because it provides a construct of recognised theory, methods and approaches to data definition (Collis and Hussey, 2003). This in turn influences methodology and validates the knowledge produced (Carter and Little, 2007).

How the nature of reality is perceived is a key shaping influence and researchers are divided between those who believe there is one objective fixed reality of truth (positivists) and those who see reality as constantly changing, interpreted by people and existing in multiple versions (naturalists) (Rubin and Rubin, 2012). Researchers are also divided in their beliefs regarding the extent to which individuals should contribute to the research process

My epistemological position views knowledge as socially constructed. I believe that individuals build the lens through which they see the World from their own unique legacy of interactions and experience. I also believe that research should lead to change and that individuals should be allowed to contribute meaningfully to research in order to provide solutions and improvements to improve their situations. This post-modernist paradigm is in contrast to a positivist paradigm that emphasises participants as subjects to be observed by a neutral observer (Nason and Golding, 1998). This position has influenced my research design strategy outlined below

3.3 Purpose, Aims and Objectives

The purpose of my study is how to enrich the experience of individuals studying at a distance. The aims of my research study are therefore

- 1. To explore the experience of first year online nutritional therapy students at ION**
 - How satisfied are they with their experience as online students at ION?
 - Which aspects do they feel are working well?
 - What do online students perceive to be the key differences between their experience and that of the attendance students?

- Do they perceive any disadvantages compared to attendance students and if so in what ways?
- How important is it for them to engage with other students and / or academic staff?
- How easy have they found it to organise their studies and manage their time?
- Where do they feel there is room for improvement with their online study experience?

2. To work with first year online nutritional therapy students at ION to design initiatives to improve the online experience

- What key actions can ION take to address any perceived disadvantages in experience?
- Which actions can be implemented immediately and which actions can be considered for the future?

My research objective are:

1. To identify the key factors impacting on personal experience of course delivery
2. To understand potential perceived disadvantages of the online experience versus the attendance experience of students in their first year at ION
3. To co-create with students, initiatives designed to improve the online student experience
4. To evaluate with students the impact of implemented initiatives and the project process on their online experience and to adapt initiatives / trial new initiatives as appropriate

3.4 Research Design and Strategy

Methodology must be guided by the aims and objectives of a research study (Denzin and Lincoln, 2003). This inquiry had two aims; firstly to explore the current experience of online students at ION, and secondly to work with ION students to design initiatives to improve the online experience.

In order to meet these aims there was a need for me to work with participants to access their thoughts and feelings; to understand their motivations, frames of reference and to make sense of differing backgrounds, life events, biases, preferences and ways of working. These desired outcomes are ideally met through a qualitative approach since qualitative research is concerned with rich description and is more interested in providing a detailed and complete view of the phenomenon being studied rather than demonstrating statistical reliability (Draper, 2004). The advantages of qualitative research should however be compared with its limitations in order to provide a balanced view.

It must be acknowledged that the effectiveness of qualitative research is strongly impacted by the skills and abilities of the researcher (Coghlan, 2003) as well as their world view,

assumptions and beliefs. These in turn influence the way that the research is planned and conducted and interpreted. Outcomes of qualitative research are by their nature not measurable and quantifiable (Denzin and Lincoln, 2003) and findings are often context-specific and therefore not generalizable.

A number of methodological choices exist within a qualitative framework. The first aim of this project required a rich and complete comprehension of the student experience. It was important for me to apprehend the thoughts and feelings of a variety of students and to understand and make sense of the differences in their online study experience. A phenomenological approach is ideally suited to achieving such an aim because as Willig (2013) observes, it involves in depth examination of the participants' life-worlds

The second aim of the project on the other hand required an action-oriented approach since it relied on myself as researcher working with research participants to explore ways in which ION and ION students were able to take action to improve online experience. One such methodology frequently employed in education settings is participatory action research (PAR). Traditional (PAR) emphasises the equality of researcher and participants within the research process. This type of approach is committed to ensuring that researcher and 'researched' stay partners throughout the entire process and that participants are "authentically involved" with personal agency (Khan and Chovanec, 2010).

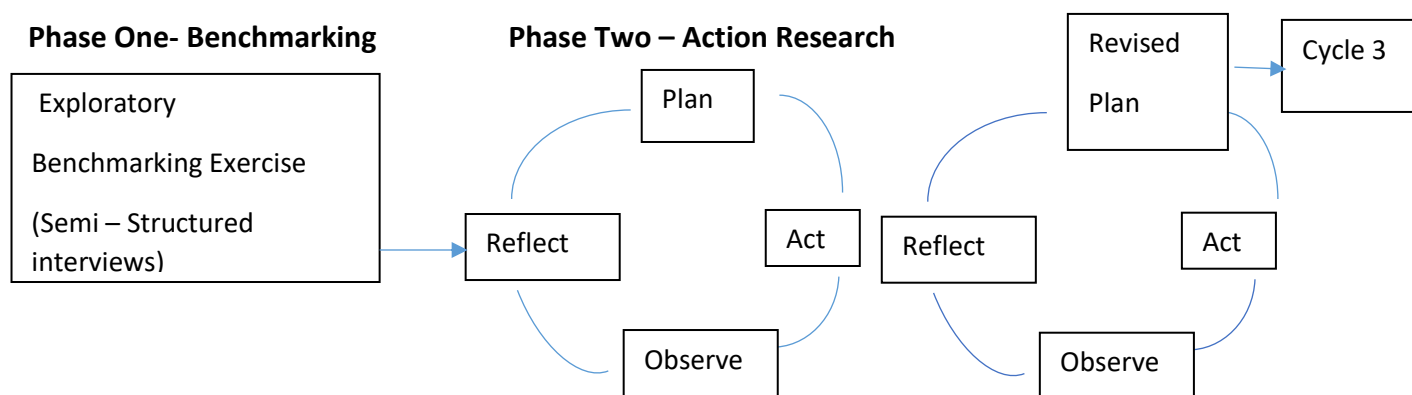
Such an orientation it has been claimed, leads to social change and empowerment through dialogue and "conscientization" (Freire, 2005). PAR has been shown to confer a variety of advantages for learners including increased awareness, self-confidence and problem solving ability (Feldman, 2007). From the perspective of teachers and educators, a PAR approach emphasises reflection and the development of new knowledge (Hammond *et al.*, 2005). This aligns with Dewey's (1997) belief that the teacher has more to learn than to teach and moves away from what (Freire, 2005) described as the "banking" approach to education.

It must however be recognised that PAR has some disadvantages in an educational setting. Firstly, the extent to which participants are empowered is questionable because ultimately the teacher is tasked with assessing the student and awarding a grade based on the teacher's judgement of student attainment (Hooks, 1994). Another downside of PAR is that it is time-consuming and complex to implement (Gillis and Jackson, 2002; MacDonald, 2012). Involving participants at every stage of the research process puts time demands on participants which as Bennet (2004) acknowledges, may pose a barrier to involvement in the project. This is a particular challenge with non-traditional students in a higher education setting as the combined demands of work, family and study mean that students are already time-poor (Swain and Hammond, 2011)

An alternative methodology to PAR is action research (AR). AR is a family of research approaches (of which PAR is a specific subset).(Reason and Bradbury, 2008). AR emphasizes the combination of inquiry with the development and implementation of practical action (Reason and Bradbury, 2008). Earlier forms of 'conventional' AR emphasised the role of an expert researcher using scientific methods with limited participant involvement in knowledge creation (Maurer, 2009). More recent approaches to AR have on the other hand

highlighted the importance of human interpretation and dialogue with increased participant involvement and a commitment to improvement, democratisation and empowerment (Reason and Bradbury, 2008). Although the terms are often used interchangeably, AR is differentiated from PAR in part by the level of participation. Whilst in PAR, stakeholders are involved as equal partners throughout (Khan and Chovanec, 2010), the level of participation in AR may vary depending upon the project, the context and the way the approach is employed (Liamputtong and Ezzy, 2005).

As a Masters assignment, this project was necessarily of short duration and owned by me. It was therefore necessary in the context of these constraints and the time limitations of the online students, to use an expedient approach in which overall control of the project was maintained by myself. Given the considerations outlined above a two stage qualitative methodology was adopted utilising a phenomenological benchmarking approach for phase one and an action research (AR) approach for phase two. It is important to emphasize that the intention towards participant involvement, democratisation and empowerment (Reason and Bradbury, 2008) within the AR approach employed in phase two was still very much present and was embraced to the extent that was practicable within the project context. The choice of specific methods used in each phase is justified and explained in the methods of data collection section below



3.5 Methods of data collection and data analysis

3.5.1 Phase One- Aim One (Benchmarking)

Phase one addressed study aim one. This aim required a detailed exploration of current online student experience. In depth discussion with a representative sample of online students was needed to capture the range of thoughts and feelings associated with the group. Such an aim lent itself to semi-structured interviews as a method of data collection. Although time consuming to conduct, as (Hochschild, 2009) argues, compared to surveys, interviews enable issues to be explored in depth and also allow for opposing or minority views to be captured without the issues of dominance and pressure to conform that can occur in group settings (de Ruyter, 1996). Semi-structured interviews are the most widespread interview type used in qualitative research and in comparison to structured

interviews provide more flexibility for the interviewer to follow up on areas of interest mentioned by the interviewee (Kvale and Brinkman, 2009). An additional advantage of semi-structured interviews is that compared to unstructured interviews they allow more scope for interviewers to hone in on aspects that they consider significant to the research project (Mcintotosh and Morse, 2015)

3.5.2 Phase Two – Aim 2 (Action Research)

Once a robust understanding of the student experience and areas for improvement had been achieved, the second phase of the project (AR), focussed on the second aim, namely to work with first year online students to design initiatives to improve online student experience. In this stage collaborative action sets were used comprising a subset of the students who had already participated as interviewees in phase one. Group size varied between meetings according to participant availability but remained broadly in line with the recommended 5-6 participants as an appropriate group size (McGill and Brockbank, 2004). Group work has been shown to be advantageous by facilitating the exchange of knowledge and abilities between members (Pfaff and Huddleston, 2003). Additionally such a collaborative approach is as (McGill and Beaty, 1995) observe, ideally suited to solving complex organisational problems through a process of questioning, reflection, decision-making and action

Despite the benefits of a group action set approach, there are inevitably some factors that influence its effectiveness. Analoui, Sambrook and Doloriert (2014) point to differences in group make up (for example gender, geography, culture and religion), personality traits and group members not liking or trusting each other. Success of group work also relies on the time, effort and commitment of group members and of the skills and experience of the facilitator. Steps taken to mitigate such disadvantages are outlined in chapter 4 Project Activity below

3.6 Sampling and Recruitment Strategy

The inquiry aimed to investigate and enrich the experience of ION online NTDC students in the first year of study. The study sample was derived predominantly from students in their second semester at ION, since internal evidence suggests that this is a key time when students are at risk of leaving the course.

Although qualitative research aims to be “theoretically generalizable rather than empirically generalizable” (Draper, 2004 p.642), it is important to ensure that adequate data is collected to afford a reliable representation of the population being studied. There is no firm consensus on the optimal number of interview participants needed but six personal interviews were proposed for the study, as it was believed that this number would enable identification of meaningful themes and useful interpretation (Guest, Bunce and Johnson, 2006).

Purposive sampling was adopted using a random cell sampling approach to ensure that a representative socio-demographic sample of the online first year cohorts was achieved without the need to recruit different students to meet each of the required characteristics.

3.7 Ethical Considerations

Ensuring that participants are treated ethically is a critical aspect of methodological design. Researchers must be responsible for ensuring that participants are not harmed or disadvantaged by the research process. In the case of AR this necessitates going one step further and making a commitment to lessen the power imbalances in research (Karnieli-Miller, Strier and Pessach, 2009) and to improving human life (Noffke and Stevenson, 1995 p.4) As Reason and Bradbury (2008) argue, AR requires practitioners to expand the framework under which they operate and demonstrate a responsibility not only to those within the specific research setting but to society as a whole.

I made every effort in this project to ensure that participants had access to accurate information regarding the nature of the study and the advantages and disadvantages of involvement. Participants were afforded the opportunity to discuss potential involvement and participant letters and informed consent forms explained key details and withdrawal rights. It should be noted, however that AR does pose particular difficulties regarding informed consent because its evolutionary nature makes it difficult to fully outline all aspects of the research ahead of commencement (Gelling and Munn-Giddings, 2011)

In line with the responsibilities of an AR project, I aimed to be democratic and inclusive throughout the research process including participants in as many decisions as possible. One challenging ethical aspect of this project was ensuring that both cohorts involved in the study were treated equally. As the numbers from the February cohort were significantly larger than those from the September cohort (7 versus 3), they arguably obtained more of 'voice' within the project and I had to remember to create commensurate versions of initiatives for the September cohort. This is discussed further in chapter five below.

Another specific ethical consideration relates to the power dynamics within the project. As all forms of knowledge are valued within AR (Reason and Bradbury, 2008), this puts a responsibility on the practitioner to help facilitate preferred initiatives suggested by the group. This at times caused tensions and conflicts with other stakeholders which is discussed below in chapter five

Confidentiality of participant identity and information shared were managed via the use of participant pseudonyms in transcripts, reflexive journal entries, and written up results. Action set participants were asked to sign a non-disclosure statement re maintaining confidentiality (see appendix 4) and were reminded of this important principle at the beginning of each meeting. Informed consent forms explained that confidentiality was not fully within the researchers control and therefore couldn't be guaranteed.

Storage of data is a critically important aspect of participant confidentiality. All data was encrypted and stored electronically to comply with GDPR data protection legislation and Middlesex University data storage regulations

Finally it is important to state that researchers have an ethical responsibility to report an authentic and truthful account of the research findings. The mechanisms employed to achieve this are discussed in the reliability and trustworthiness section below

3.8 Data Analysis

A combination of methods were used to analyse and interpret the data collected. These are discussed below

3.8.1 Phase One - Thematic analysis

The semi-structured interviews in phase one generated substantial amounts of data and an appropriate analytical approach was therefore needed to help make sense of this. As a novice researcher with limited time, it was important to use an approach that was relatively simple to learn as well as being straightforward and quick to implement. A number of options were considered including Thematic Analysis (TA), Grounded Theory (GT) and Interpretive Phenomenological Analysis (IPA).

Thematic analysis (TA) was chosen because, it is a flexible method and “provides core skills that will be useful for conducting many other forms of analysis” (Braun and Clarke, 2006 p.78) One of the advantages of the flexibility of TA is that unlike alternatives methods such as IPA or Grounded Theory, it is not aligned with a specific epistemological position and fits well within a constructionist paradigm (Braun and Clarke, 2006). TA is a respected approach to data analysis which enables the key features of large amounts of data to be summarised providing a rich and detailed, yet complex account that is easily communicated to stakeholders (Robson and McCartan, 2016; King, 2004). It also has the advantage of being able to be used inductively or deductively (Braun and Clarke, 2006).

It should be noted, however that TA does have a number of disadvantages. As (Nowell *et al.*, 2017) observe, there is limited literature on TA compared to other methods such as Ethnography, GT and Phenomenology. This coupled with confusion linked to the flexibility of the approach may mean that it is sometimes applied without methodological rigour (Nowell *et al.*, 2017). Additionally its output is often confined to description with limited attempt made to interpret the data (Robson and McCartan, 2016)

In order to overcome the disadvantages associated with TA, effort was made in this study to follow the specific procedural steps recommended by (Braun and Clarke, 2006 p.16) and to code using both semantic and latent codes to facilitate both description and interpretation. The specific steps followed and reflection on the process is provided in chapter four below

3.8.2 Phase Two – First and Second Person Reflection

First and Second person reflection were employed to understand and record the outcome of individual experiences, to explore how successfully actions were implemented and to evaluate the impact of actions on student experience. As Mertler (2006) acknowledges, second person reflection enables tentative ideas and discoveries to be checked and developed. A further advantage is that it allows one aspect of the inquiry to be related to exploration of other parts (Marshall, Coleman and Reason, 2011). In order to facilitate group reflection, I initiated guided discussion using open questions to stimulate in-depth information from participants

As researcher and facilitator of the action sets, I critically reflected on my thoughts, feelings and actions throughout the project to comprehend and make transparent the interaction between myself as researcher and the knowledge created. This additionally enabled me to adapt my approach for subsequent interviews and group sessions. Reflexivity when undertaken systematically can as Alley, Jackson and Shakya (2015 p.427) argue, “enable researchers to critically examine the nature of their work and to identify how their underlying values, assumptions, and beliefs affect the synthesis, dissemination, exchange, and application of their research findings.” This is explored further in chapter four below

3.9 Reliability and Trustworthiness

Although it must be acknowledged that qualitative research is never free of the researcher (Creswell, 2007), researchers have a responsibility to ensure that adequate measures have been taken to ensure the trustworthiness and reliability of the research findings. As an insider- practitioner led qualitative inquiry, my project has benefited from as (Holgerson and Melin, 2015) observe, good access to and an understanding of the norms, culture and symbols of the organisation. However it is inevitably influenced by the pre-conceptions and beliefs about the student experience that I bring to the inquiry. As outlined above, efforts have been made to offset these limitations by adopting as Teusner (2016) suggests, a reflective and reflexive stance and making transparent all procedures and decisions. Additionally, in line with an AR paradigm, member checks of transcripts, action set notes and project write up were employed. Finally ‘thick’ description is used within this paper to bring alive participant experience and to enable readers to make judgements about the credibility of the findings and their transferability to other situations (Creswell and Miller, 2000)

3.10 Summary

The goal of this chapter was to outline the methodological approach to the study. An overview of philosophical position, research design, methods, ethical considerations and validity have been provided. Methodological strategy has been explained and justified with alternative options evaluated. The next chapter will now discuss the project activity

4. Project Activity

4.1 Introduction

Having explored the context, knowledge landscape and rationale for the methodological approach, this chapter will now explain and evaluate the specific decisions made and actions taken at each stage of the project. Critical reflection will be employed to consider the impact of such actions and to consider how these contributed to the findings and outcomes of the study

4.2 Project Planning

“Systematic planning and preparation are the essence of ‘strategy’ for the conduct of practitioner- based enquiries.”(Murray and Lawrence, 2000 p.42). Murray and Lawrence acknowledge that whilst some projects are straightforward, most are likely to be complex with unforeseen issues and obstacles. This is particularly the case with action research which adapts and develops over time in unpredictable ways (Townsend, 2013)

In order to enable me to manage the project as well as possible, a project plan was produced outlining the key activities to be completed at each stage of the study (see appendix 6). An ‘agile’ approach to the project was thereafter adopted and the original plan was reviewed and updated throughout the project as new information came to light and as new required actions were identified. This approach proved invaluable for keeping me focussed on the required activities which will now be discussed below

4.3 Participant Recruitment

Students were recruited via a series of announcements placed on the year one student virtual learning environment (cohort page for students in their second semester). The study was additionally mentioned to student representatives at the November Student Staff Liaison Committee. As recruitment was initially slow, the recruitment criteria was widened to include students in the first semester of year one and announcements were placed on their respective cohort page.

Students expressing interest were provided with invitation to participate letters and informed consent forms and were given the option to participate in either phase one (interviews), phase two (action sets) or both. Recruitment was eventually better than anticipated with 7 year 1 (semester 2) students and 3 year 1 (semester 1) students recruited. Although a sample of 6 students was proposed, a decision was taken to recruit all 10 interested students. The rationale for this was that firstly according to Guest, Bunce and Johnson (2006) a sample size closer to 12 would be likely to improve the opportunity to achieve phase one data saturation. Secondly it felt ethically appropriate in the interests of inclusivity to give voice to all interested parties, particularly since the increased work on my part was relatively minor

Proposed recruitment criteria had identified a need for participants to encompass a range of age groups, ethnicities, geographical locations and family commitments. Analysis of the sample shows that this was achieved (see appendix 16) and the possible impact of these factors on student experience is discussed in chapter five.

In hindsight, the decision to extend the study criteria to year 1 semester 1 students may have been unnecessary. Morgan (1998) suggests the importance of a homogenous population to facilitate effective group work. The mix of first and second semester students created a more heterogeneous population which may have posed some disadvantages for the group work. This is discussed further in chapter five below

4.4 Phase One

4.4.1 Interview Guide Design and Pilot

As phase one consisted of semi-structured interviews, an important aspect of preparing for phase one was the design and piloting of the interview guide. The guide was originally constructed to contain text to introduce the study and questions mapped to the study aims, objectives and research questions. Interview guide questions were designed to be ordered appropriately and open-ended in nature to enable participants to fully articulate their experience in a non-directed way with prompts used to further elucidate researcher understanding. Socio-demographic data and satisfaction ratings were gathered to enable differences in experience to be examined in the context of these variables. This data was collected at the end of the interview as part of what Robson and McCartan (2016 p.290) describe as a “cool – off” strategy to settle any built-up tension.

Robson and McCartan (2016) highlight the important of pre-testing the interview schedule prior to interview commencement. This was accomplished by forwarding the draft interview guide to two internal research experts for review. Comments were used to refine the guide which was then piloted with two members of staff. Piloting the questionnaire highlighted the requirement for further amendments to order and inclusion of questions. The guide was thus refined further ahead of the first student interviews. A limitation of the pilot however is that due to time constraints the interview schedule was not piloted on participants from the group of interest.

4.4.2 Interviews

4.4.2.1 Technology

Interviews were set up at times convenient to participants and all but one of the interviews were conducted and recorded virtually using ‘Go to Meeting’ software. Use of video-conferencing undoubtedly facilitated student participation and enabled me to speak with students as far away as Australia. However, it must be acknowledged that this method has some disadvantages vis-a-vis a face to face approach. Fischer *et al.*, (2017) observe that communication is less flexible via video-conferencing than face-to-face with a more fixed ‘turn-taking nature.’ and less access to non-verbal cues. This may have affected rapport and communication to some extent. An additional minor issue was audio quality which impeded comprehension occasionally in one or two of the interviews. Overall though it must be noted that participants were familiar with the technology, appeared to enjoy the interviews and engaged fully

4.4.2.2 Insider Status

It is important to comment on the implication of my insider status as Head of Courses and to consider how this influenced the interviews and action sets. Coghlan and Brannick (2010)

highlight the importance of managing the challenges posed by the closeness of the insider researcher position. This was helpful during the interviews and action sets in that my excellent understanding of the context and area being researched made it easy for me to probe interviewees and to ask follow on questions as needed to make sense of participant responses.

As Head of Courses there was an unavoidable power dynamic between myself and the participants. It was important that they felt comfortable to disclose freely and were not intimidated by my status. Equally there was no denying their status as consumers with a right to receive the quality of education promised to them for the fees paid (Singleton-Jackson, Jackson and Reinhardt, 2010). I used small talk and verbal 'immediacy' behaviours (Mehrabian, 1971) to help establish rapport and to encourage open dialogue which appeared to be successful. What is harder to establish is whether less confident students were discouraged from participating in the study and the impact this might have had on findings.

As Course Leader interviewing students about their experience of my course, I wondered to what extent students might expect me to comment and provide reassurances about concerns raised? Porter (1984) comments on the pastoral obligation she felt to answer questions raised in her study with postgraduate students. In my case I attempted to manage this by letting participants know at the start of the interview that I was speaking with them in a different capacity on this occasion and that I would be happy to deal with any immediate concerns either after the interview or on another occasion. Notwithstanding this, my role duality caused disturbance to the flow of the interviews and action sets on occasion as I felt ethically obligated to step outside of my researcher role and to reassure a student on an area of concern raised/correct a serious misunderstanding (for example when a participant questioned the credibility of the organisation following a failed external course validation).

4.4.3 Novice Researcher and interview/ facilitation approach

As a novice researcher with pre-understanding of the research area, I am aware that on some occasions my approach may have influenced the reliability of my findings. The advantage of the semi-structured interview as a research method is that it offers flexibility to alter the wording or ordering of questions to suit the flow of the interview (Brown and Danaher, 2019) However as Robson and McCartan (2016) argue, skill and expertise are needed to successfully realise the potential afforded by this method. As an inexperienced interviewer with role duality, it was important to me to understand the specifics of feedback provided so that I could address any issues raised. I am aware therefore that on occasion I may have asked some leading, loaded and either/or style questions that may have disrupted the flow of the interview and /or influenced the reliability of my findings (Dumay, 2011).

I am also mindful that as part of my attempt to establish rapport and to make the participant feel heard, I did on occasion in interviews and action sets empathise by sharing my own feelings about my online learning experience and my knowledge from research literature. Although Smith (1995 p.15) argues that interaction and a conversational style may be valuable to encourage disclosure, many authors believe that researchers should not reveal their own thoughts and feelings since this may distract the participant and encourage agreement with the researcher's viewpoint (Mercer, 2007) .

A further reflection on my interviewing and facilitation skills is that I had a tendency to use techniques of ‘reflecting back’ and paraphrasing. As a nutritional therapist I spend a lot of time questioning clients to understand the nature of their health problems. Such approaches are commonly employed to check understanding and to help clients feel heard. In this context however it is important to acknowledge that this may have influenced the reliability of my findings as I inadvertently simplified or misconstrued a participant’s answer.

4.4.4 Phase One Analysis

Interviews were audio-recorded and transcribed using an external transcription service. This was invaluable in saving time, however it is generally accepted that it is important for the researcher to immerse themselves in the data in order to provide a true and accurate account of the research (Robson and McCartan, 2016). It must therefore be acknowledged that external transcription may have been disadvantageous in this regard. Transcripts were however validated by checking against the audio recordings which afforded familiarity with data

Data from transcripts was manually coded using an open-coding inductive thematic analysis. A spreadsheet was used to enable identification of participant ID, transcription line, excerpt and code to provide an audit trail and to enable easy retrieval of evidence. All data were coded to provide a thorough view. Data were coded for both semantic and latent meanings (Braun and Clarke, 2006)

Initially excerpts were coded using one word codes. A discussion with my supervisor subsequently created internal dissonance regarding the themes identified. This ‘critical incident’ led me to the realisation that the themes did not feel authentic; they were not accurately capturing the essence of the data. Looking back at the data extracts relating to each code, I realised that a single code was being used to capture too many unrelated statements. To enable me to resolve this, I took time out to read and research the TA coding process and understood that my codes needed to be more specific. As Castleberry and Nolen (2018 p.809) argue, “The code serves as a tag used to retrieve and categorize similar data so that the researcher can pull out and examine all of the data across the dataset associated with that code”. Following this realisation I re-coded data using three or four word phrases to create a greater number of more specific codes. An example of an original and revised code is shown below.

Participant Excerpt	Original code	Revised Code
But again, maybe for me, that means that I should not be an online learner	Online	Online learning means compromise

Recoding the data led to the identification of three key themes – *Peer Interaction, Support and Guidance and Format and Resources* which are discussed in chapter five – project findings below.

4.5 Phase Two -Action Research

AR is associated with cycles of planning, action, observation and reflection (Kemmis and Carr, 1986) Project activity for phase two is therefore discussed within this framework

4.5.1 Planning

A key aspect of planning for the group sessions involved agreeing meeting dates with participants at an early stage to enable participation. As has been noted earlier, ION students are non-traditional, juggling multiple commitments. Once recruitment was complete, I therefore used an anonymised 'doodle' poll to invite students to express their preference for meeting dates and times. Students were offered the opportunity to attend in person or via video – conferencing for added flexibility. Dates were then quickly confirmed by email with reminders sent out nearer to each date. This approach appeared to be successful as attendance at each meeting was pleasing with five students attending session one, eight attending session two and four attending session three

Following the identification of the three themes from the thematic analysis in phase one, a decision was taken in consultation with my supervisor to use one of the three themes in each cycle of phase two. Themes were communicated to students ahead of the action sets to allow them time to think about ideas ahead of the meetings. Using the themes generally worked well although it did lead to some overlap in initiatives generated and resulted in the need for some chosen initiatives to be put on hold until the end of the study. Additionally one of the downsides of the planned timings of the study was the short time duration of only three to four weeks between each group session. This made it difficult to initiate much action in between group meetings. These issues are discussed further in chapter five below.

Time was taken ahead of each group session to plan the structure, facilitation techniques and allocated timings for each group meeting with observation and reflection from the previous meeting informing planning for the next cycle. One key decision taken at the end of action set one was to switch to a different video-conferencing software to enable video capture in addition to audio only. This decision had both advantages and disadvantages which are discussed below

4.5.2 Action

4.5.2.1 *Creating an effective group-work environment*

As small group work relies on participants feeling comfortable and collaborating effectively (Mei Fung Wong, 2018), effort was made to create a suitable environment for the action sets. In the first meeting, time was dedicated to explaining the context of the group sessions and the topic to be discussed. Additionally effort was made to enable students to get to know each other and to agreeing the contractual terms for working together. Students were invited to introduce themselves and explain their interest in nutritional therapy. Students appeared to enjoy getting acquainted although the process took longer than scheduled and created time pressure on the later elements of the session.

Contractual 'ground –rules' (see appendix 10) for the group were suggested by myself with participants invited to comment and suggest any additional considerations. Ideally in line with the democratic principles of an AR methodology (Reason and Bradbury, 2008) these would have been drawn directly from the group but given the limited time available this approach was felt to be expedient. One of the challenges for the project was the differing participant composition of each action set. This made it necessary to allocate time for further introductions and reminders of ground-rules and arguably impacted on the cohesiveness of the group.

4.5.2.2 Nominal Group Technique

In each action set a Nominal Group Technique (NGT) was used to identify initiatives to help address each of the themes identified from the interviews in phase one. NGT is a consensus building technique designed to elicit a quantitative estimate using a qualitative method (Foth *et al.*, 2016). An important characteristic of NGT is its democratic ethos (Foth *et al.*, 2016) which provided a good fit with the study aims and objectives. NGT also enables a significant amount of work to be achieved in a relatively small amount of time (Carney, Mcintosh and Worth, 1996) making it a valuable technique for busy students. NGT has been used in a number of AR and PAR projects (Owen *et al.*, 2016; Bromley, 2014; Pastor-Montero *et al.*, 2012) so was considered to be an appropriate technique for this study, however it does have some disadvantages. Stewart and Shamdasini (1990) for example, argue that strong minority disagreement might be concealed beneath the appearance of consensus within a group and Hiligsmann *et al.*, (2013) claim that misunderstanding of generated ideas is common.

NGT is designed to be used in a face to face environment with two supporters (Carney, Mcintosh and Worth, 1996) so adapting the technique for a virtual group session was challenging particularly as I was hosting the group alone. If time had allowed, a pilot of the technique would have been highly beneficial and may have enabled the first group session to run more smoothly.

The first stage of the NGT process requires group members to spend time thinking alone about ideas to a given question or problem. Participants are then invited to describe their ideas one at a time in a 'round-robin' format until all ideas have been shared. Ideas are recorded by the facilitator; discussed by attendees and then voted on with the top ideas taken forward for action.

In practice, the challenges of using a new technique in a different environment led to some deviation from the original prescribed approach. For example in the first meeting students volunteered all their ideas at once rather than providing one idea at a time. This may have negatively influenced group dynamics by giving some participants less voice and possibly making them feel less engaged in the process. Additionally Ideas were written up in a word document with screen sharing in place to replace a flip chart. When voting, in order to save time and simplify the process, participants were asked to identify their top three quick -win ideas rather than starting with their top and bottom preferences and then ranking all ideas. In place of writing ideas on cards, ideas were sent to myself in priority order using the chat function within the video- conferencing software. Scores were then tallied against each item and the top three ideas to be taken forward were revealed to the group. Ideas generated by each group with respective voting scores can be found at appendix 11.

A number of studies have argued that one NGT meeting is inadequate to agree consensus on priorities (Sandergaard *et al.*, 2018) and a downside of time restrictions in the second group was that some ideas lacked specificity. The use of new video-conferencing software and unexpected technical issues in the second action set provided additional time challenges. Additionally a number of participants arrived late and / or left early. This was distracting for myself as facilitator and derailed some of the planned group reflection and introduction of new group members. Time dedicated to idea generation and discussion was however better managed in groups 2 and 3 with the result that a clearer set of priorities emerged

Once initiatives had been identified through the NGT process, participants were encouraged to take on action themselves. This however met with some resistance. Students articulated some concerns about time constraints given assignment pressure deadlines and the belief that ION initiated actions would carry more gravitas with students. Reflection and planning led to improved outcomes in groups two and three although nearly all of the agreed action from the project were assigned to myself. This is discussed further in chapter 5.

Transcripts of each session were forwarded to participants in attendance with agreed actions sent to all participants. Weekly progress on agreed actions were sent out which seemed to work well to maintain engagement and enthusiasm with feedback such as:

“Thank you Paula, Great Progress” P.1.

“That’s brilliant Paula, Thank you Paula” P.2.

4.5.3 Observation and Reflection

Reflection immediately after each group session enabled me to capture my immediate thoughts and feelings. Further reflection was facilitated by re-watching the recordings of the meetings and through reading the transcriptions. The decision in groups two and three to use a software enabling video capture (in addition to audio) enabled me to observe body language of myself and participants, thereby facilitating a better understanding of group dynamics. It also enabled me to observe the differing participation levels of different students and to encourage quieter students to engage more in the subsequent sessions.

Questioning techniques used within group meetings aimed to encourage group reflection on the process and on the usefulness of the actions taken. In group two however larger than expected participant attendance with students arriving and leaving at various different points was distracting to the process. This coupled with technical issues experienced by a number of participants, derailed planned activities to some extent, undermining the effectiveness of the group reflection.

Personal reflection on the effectiveness of the structure of each session did enable me to adapt the agenda for later sessions and allowed more time for clarification of priorities and negotiation regarding action. Detailed reflections on each cycle are contained within chapter 5 below

An electronic questionnaire (appendix 7) sent to participants at the end of the project aimed to further capture overall reflections on the process and outcomes. The next chapter will now discuss the findings of the research project.

5. Findings

5.1 Introduction

The findings of each phase of the project will be considered below with verbatim extracts from interviews and action sets used to illustrate and support my conclusions

5.2 Phase one semi-structured Interviews

The purpose of phase one was to benchmark current experience in order to identify key areas of importance to be taken forward into the action sets in phase two. The thematic analysis of transcribed interview data in phase one led to the identification of three key overarching themes relating to the student experience of online learning on the NTDC course at ION. These were, (1) *Peer Interaction*; (2) *Support and Guidance* and (3) *Format and Resources*. Each of these themes will therefore be discussed in turn below

5.3 Peer Interaction

All ten participants highlighted the importance of peer interaction to their student experience. Nine of the ten participants expressed a desire for more interaction with five participants (all from the February cohort and in their second semester) claiming to feel quite isolated

“I think the hardest thing is the lack of contact with other people” P.1

“ I feel like I haven’t got a single person that I can, a student that I can pick up the phone to...” P.7

5.3.1 Types of Interaction

WhatsApp appeared to be the preferred communication tool used predominantly for assignment help, general chat, and support and sharing of free online textbooks links. Although the success of different WhatsApp groups seemed to vary, students viewed the tool as providing benefits of safety and immediacy not offered by asynchronous discussion forums on the VLE.

“We ask each other [via WhatsApp] the stupid questions before we stand up and wave a hand and ask ION” P.1

“Maybe it's the WhatsApp group is very quick and the answers come quickly, and maybe people don't want to wait until somebody reads what was posted in the forum” P.9

A few groups had embraced Facebook and Skype/ Zoom occasionally, whilst others reported abortive attempts due to inadequate technological understanding and expertise

Some students had additionally met up in person with peers individually or as part of a group, either at the ION- induction event or at a student – organised meet-up (mostly for social purposes). One student mentioned that her study group were collaborating using Drop box

5.3.2 Peer Interaction Issues and barriers to interaction

Participants identified inadequate peer engagement with forum posts, set activities and study groups and felt disadvantaged in comparison to attendance students due to lack of opportunity and guidance to discuss topics of interest, to share resources and to sense-check their understanding of assignment briefs with colleagues

“Somebody posts something and often they don't get any response at all, and the activities that we've been given, so I think I did the first one which was a mind map, I think only about three people did it and nobody - whether anybody looked at anybody else's, I don't know...” P.7

“That kind of discussion thing. I thought there would be more of that. Like I said, because that's part of preparing me for practice” P.2

“Maybe I - it's a bit more like the isolation thing again, because I think it would be easier to connect to other people if we would be in the same room and having the weekend lectures and everything. I think that's the main difference....” P.9

A number of barriers to interaction were discussed. Limited time due to intensity of the course and competing commitments were mentioned by some students. Time zone differences caused an additional barrier in some instances

“Yeah, they're just all in different places and they've got different things going on. I totally understand, that's the trouble- it's completely okay but just doesn't help P.2

“Well I don't think anyone has the time to do them [group activities]? So they're almost kind of pointless” P.7

Some students found it difficult to interact with other students that they had not met / did not have an existing relationship with and found it challenging to organise themselves without tutor input

“I've never been particularly comfortable with the level of - the type of discussions people have never having met people. I'm just a bit more reticent than that. That's just my personality” P.7

“...when you know someone it's always different isn't it? I always think when I was working, I did a lot of stuff virtually but when you have a relationship already, you can maintain that quite easily virtually.” P.2.

Difficulties interacting with students without a pre-existing relationship was compounded in many cases by the faceless online environment in which communication happens, predominantly by what's app and via asynchronous forum based communication. Even synchronous real time webinars were perceived as problematic unless students could see each another

“The thing I hate about virtual is when you're in a meeting or with people, you can see body language. You know who wants to speak. If you've got a lot of people {on a

webinar} you obviously can't see everybody, so you have no idea if someone wants to speak.. P.7.

Lack of confidence / fear of looking stupid / finding other students intimidating was also a very real inhibiting factor for a number of students.

"I think to myself well, I don't know how to ask that and do I put that in a forum but then like I say, because there's not much going it's really - sometimes it feels like you put something there and it just - I don't know-or I feel really stupid for putting something. I don't know" I feel very exposed. P.2

"It felt as if people were apprehensive or didn't like to put things out there for fear of - I don't know, maybe judgement..." P.3

One participant indicated that tutor help was needed to facilitate meaningful forum discussions threads

"There was one about hormone activity that xxx did. That actually was really well received in the forum. Everybody started posting their little mid maps that they did about hormones, so that kind of stuff." P.4

Participants also suggested that other students may be reluctant to interact for competitive reasons and / or because of a tendency to introversion / preference for working alone. However these reasons were not cited as personal reasons by any of the study participants

5.3.3 Positive aspects

Despite the general feeling of isolation, some students had made friendships and developed meaningful study groups.

"I'm part of a little group of four people. We just seem to have hit it off" P.1

"The best thing is I've found another year 2 student in xxxx. I've connected with her at-actually when I was doing the NTSAC. She's been awesome in giving me information" P.4

5.4 Support and Guidance

Support and guidance was identified by all participants as another important aspect of their online experience. Aspects mentioned included guidance to understand course content and assignment requirements, pastoral support, general academic skills and help with IT and technology.

Of the ten students interviewed six claimed to be largely content with the level of support and guidance, whilst four participants felt that improvement was needed.

Overall participants were content with response turnaround times except for the odd example of an email which had not been answered. Students were also universally positive about the support offered by the Academic Support Tutor. Attitudes to written assignment support and feedback varied with some students reporting that the guidance and marking was excellent whilst others felt this was inadequate. IT support was only mentioned by three students but was identified as one of the weakest aspects of support. Issues with

downloading resources were highlighted and two students felt more help with using online collaboration tools would be useful

5.4.1 Barriers to accessing support and guidance

Interestingly, students were divided in their attitudes towards the approachability of the module leaders and year leaders. Some students felt very comfortable to reach out and ask for help when needed

“I know she's quite senior but I feel that I can just email her which is a nice feeling to have” P.5

“If I've got a problem I would go and see xxx” P.7

Conversely, other students felt much less able to do this.

“I know we're adults and if we have a problem then we're supposed to put our hand up, but it's not always that easy” P.1

“Yeah I don't find them very approachable actually” P.2

Some issues with approachability appeared to be based more on perception than reality as students reported feeling pleasantly surprised when they did take the plunge and make contact

“The kind of persona I thought she had in my head from her lectures definitely was very wrong. I thought she would be very business-like with me on the phone. She was very warm and understanding and we had a really, really nice conversation” P.6

In other instances students were put off by tutor responses to their queries which made them feel uncared for and created reluctance to ask for help going forwards

“They just - they don't care, they're not listening, they're just pushing it back on me and they're not giving me any answers” P.8

One student felt that tutor contact details were not easily accessible and that the process for arranging to speak with a module leader was unclear. There was also a sense that module and year leaders would be too busy or wouldn't be interested. Some students felt that because they were online – learners they were less entitled to support or that for support to be helpful they would prefer to meet face to face

“ You just feel that you've chosen this method of study” P.1

Students who were unhappy with the level of support offered felt that module and year leaders needed to do more to demonstrate their presence and to establish a sense of themselves in order for student to feel comfortable to contact them.

“I think being more present. Not their time availability, because the time is there and if I needed to, I can call during those times. But I think just their presence would be better for us really to get to know who our lecturers are a little bit.... I think if we knew the personalities more of the staff, we might be more likely to engage with them more as well” P.6

Six students also identified a need for more proactive support interventions such as phone calls from tutors or scheduled small group tutorials where difficulties could be discussed and resolved.

5.5 Format and Resources

Format and resources represents the final aspect of experience identified in phase one. Again, as with the two previous aspects discussed, the course format and resources were universally felt to be important to the quality of the student experience. Aspects of format and resources raised by students included the course curriculum, assessment programme, VLE structure and organisation, lecture and e-unit quality and study flexibility. Of the ten participants interviewed six appeared to be predominantly satisfied with format and resources whilst four participants indicated that there was significant scope for improvement.

5.5.1 Positive Aspects

Participants were mostly enthusiastic about the course content and aspects of the curriculum that they had been exposed to so far.

“I'd say it's a positive surprise for me. I didn't know what to expect in the beginning, but just the wealth of scientific information that we're being delivered, that's outstanding” P.4

“Everything seems very practical. I do genuinely feel like I'm being prepared to work” P.2

All participants praised the convenience and flexibility offered by the online course format and the option to attend adhoc attendance lectures

“I've gone abroad and I've studied abroad. So when we went on holiday I'd do a couple of hours of study in the morning before we went out cycling for the day, that's been really brilliant” P.8

“I just really like working in my own time. So I think we have really busy lives, everyone, you know... and I feel like the course is geared towards particularly women who have busy lives” P.5

Participants were predominantly positive about the quality of the lectures and recording format with the exception of one lecturer whose lectures were felt to be sub-standard by all February cohort participants (the lecturer was changed for the September cohort).

September students were also enthusiastic about the lecture live-stream (live-stream opportunities were not available for the February cohort)

“Yes I always try and do that yes, always do that [livestream]” P.5

“I love it that they ask us to email questions in during live lectures... because it just gives you the opportunity to raise your hand about a topic” P.4

Opportunities to embed learning through quizzes and checklists were also appreciated.

“She had some checkpoints, systems slides with questions to clarify... I found those really useful...” P.2

5.5.2 Less Positive Aspects

5.5.2.1 Resources

Although all students valued the convenience and flexibility offered by the online lectures and e-units there was an acknowledgement that they were somewhat removed, and their inability to ask questions in real time and to hear questions asked by other students on recorded lectures put them at a disadvantage in comparison to attendance students

“So, when there's a lecture and it's recorded, and if you don't understand what the sentence is.... But if you're in the room, I can say can you explain that a bit more, because I don't understand that? P.6

“One of the things that I think is quite difficult is when we're....watching someone else watching the lectures. It feels like another stage removed. It's less involving” P.2

Additionally technical issues sometimes interfered with the ability to watch and download lectures and several students also felt that a different teaching approach was required for the development of skills based modules such as Clinical Analysis

“I used to be able to watch a video and if I had to say, do an email before it ended, I just toggled between applications....That doesn't work for me anymore. I don't know why” P.7.

“I think clinical analysis has been really difficult for me to get to grips with” P.6

5.5.2.2 VLE layout

One area mentioned by all students was the structure and organisation of the virtual learning environment. Students fed back that materials were not always structured logically, search functionality was ineffective and that titles of lecture notes, scheduler topics and recordings were misaligned making it difficult to match up resources. Additionally a few February cohort students felt somewhat overwhelmed by having all lecture resources available upfront

“I still feel it needs improving [VLE].. Just generally trying to find information, I feel the search could do with a bit of tweaking...” P.10

“Because we get dumped everything at the beginning it's quite hard” P.2

The more satisfied students did report however that they had got used to the structure over time and that changes could be detrimental

5.5.2.3 Assessment

Students generally felt that assignments were too frequent allowing inadequate time for them to reflect and to assimilate knowledge. Some students expressed a preference for assignments not currently used such as exams that they felt would test a broader range of learned knowledge. One student who had already completed several degrees felt that felt

that there should be more flexibility to submit in different formats to fit in with different learning styles.

5.6 Summary

Of the three aspects of experience identified in this study, *Peer Interaction* was identified as an issue by the highest number of participants (nine) with an equal number of participants (four) raising issues of *Support and Guidance* and *Format and Structure*. The three themes were used to structure the group sessions in phase two (one theme for each group), enabling participants to identify and agree initiatives to improve their experience. As *Peer interaction* was identified as being the issue affecting the largest number of participants, this theme was used for action set one to enable these initiatives to be prioritised. *Peer Interaction* was followed by *Support and Guidance* for action set two and lastly *Format and Structure* for action set three.

5.7 Phase Two – Action Research

The aim of phase two of the study was to work with participants to identify, implement and evaluate initiatives to address issues identified in phase one.

5.7.1 Cycle One – Peer Interaction

5.7.1.1 Planning

The first action set on *Peer Interaction* produced a total of twenty three quick win initiatives using nominal group technique (NGT). The full list of ideas can be found at appendix 11. The five students present at the meeting voted on the top three candidate ideas. As ideas three and four achieved the same number of votes then it was agreed that the following four ideas would be taken forward

1. Cross Cohort Facebook group with input from course staff and nutritional therapists
2. Themed social per semester (Xmas / summer socials)
3. Webcam – ensure tutors have them switched on where possible
4. Regular meetings – live or at ION

5.7.1.2 Action

As none of the participants were keen to take on action it was agreed that I would take responsibility for kick-starting the identified initiatives. Initiative three was the easiest to implement and was addressed by communicating with module leaders at an academic team meeting and by follow – on email. Discussion towards the end of the meeting, identified the need to understand more about student meet up preferences prior to deciding on action for initiatives two and four. The consensus was therefore that a logical first step was to produce a questionnaire to go to the two cohorts.

A short paper was composed on the Facebook idea (appendix 14) and this together with the other initiatives were discussed by myself with academic staff at ION. It was felt that the questionnaire was a logical idea and that any decisions on initiatives two and four should be postponed until the end of the project when these could be evaluated in the light of the questionnaire results and the full results from the overall AR project.

5.7.1.3 Observation and Reflection

Observation and reflection throughout the AR phase of the project took the form of first-person observation and reflection and second person observation and reflection generated through discussion at the group meetings. At the end of the three cycles an online questionnaire (see appendix 12) was sent to participants to access their overall thoughts and feelings about the usefulness of the project

Participants appeared to generally engage well within the action set and complied with the ground rules agreed at the beginning of the session. Despite students not all knowing each other, rapport appeared to be good. The one student from the September cohort, however contributed noticeably less than the other students. She was more satisfied during interview than the other participants in this meeting. This arguably may have created a dissonance between her and the other participants and suggests as Schullery and Schullery (2006) argue, that homogenous groups may be preferable for making participants feel comfortable to speak freely.

One observation from the first cycle was the reluctance of participants to take on action themselves. Reasons cited were time restraints and a sense that actions would be viewed more seriously if initiated by ION staff rather than by students. This was understandable, if disappointing, within the context of a project designed to empower participants and to develop their knowledge and skills.

Heron and Reason (2006) suggest that an initiating researcher has a responsibility to orientate and induct participants into the specific methodology used so that they can take it on as their own. Unfortunately within this project, time constraints made it impossible to host any introductory sessions. Additionally I am aware that inadequate time was allocated to orientation in the first session. I could also have done more to encourage participation by better framing the participatory nature of the research and by using coaching to address participant concerns re taking on action. It must be acknowledged however, that despite my democratic aims, this was ultimately my Masters project and the structure and methods were decided by myself rather than the participants. As Bond (1990) observes, participants may desire differing levels of engagement and it is important for researchers not to make assumptions regarding this. Additionally, as Cooke *et al.*, (2001) argue, too much emphasis on participation can reinforce existing power imbalances. These considerations prompted me to revisit the topic of participation in the next session and to allocate more time for the process of agreeing actions whilst keeping in mind the democratic right of my participants to decide whether or not to take on action

5.7.2 Cycle Two – Support and Guidance

5.7.2.1 Planning

In the second action set, students generated thirteen ‘quick win’ candidate ideas (appendix 11). After voting it was agreed that the following ideas would be taken forward.

1. Allocated tutor throughout the three years – one on one session to start with, one meet up a year / semester. Pastoral care. More personal 1 -2 – 1 time with year leader / personal tutor
2. Online tutorials (not assignment focussed). (E.G. Fats)
3. Record an actual consultation with online tutorial re how recorded and interpreted the consultation +watch consultation online and take notes (share how students do things).

5.7.2.2 Action

The nature of the top priority initiatives generated from cycle two meant that it was difficult for participants to take on the action since these required discussion, planning and evaluation by staff within the organisation. It was therefore agreed that I would take these forward. Given the size of these initiatives I made it clear to participants that they would be unlikely to be actioned within the timescales of the project. Action on cycle one initiatives however continued. The questionnaire was written, discussed internally and was shared with participants for input. Further internal discussions regarding the Facebook page identified some concerns re students accessing staff profiles and personal information. It was therefore agreed internally that Microsoft Teams would offer a more appropriate platform to achieve the desired objectives. Additionally some of the easy to implement non-priority ideas (such as adding tutor contact details to module pages and providing information on collaboration tools) were implemented

5.7.2.3 Observation and Reflection

Group discussion on the ideas generated and the actions taken highlighted a lack of definition surrounding some ideas. For example ‘tutorial days’ and ‘group activities’ could be interpreted by students and myself in a number of ways. Additionally, an intriguing reflection of a couple of the group members was that the passage of time had changed their thinking on the importance of one of the initiatives that they had voted on in the first cycle (the Facebook group).

...”I was reflecting on the Facebook thing and although it’s kind of a nice idea, it’s just another distance technology tool it doesn’t replace real contact... seeing people talking to people so I think it would be helpful, but I... don’t think it is the right sticking-plaster personally..” P.2

Thinking back to the first group reminded me that participant opinion had been quite divided on initiative priorities. This was interesting given the promised benefits of NGT as a consensus building technique (Foth *et al.*, 2016)

These observations highlight some of the established disadvantages of NGT. Firstly it is a rigid approach and lends itself to a single topic / single purpose meeting (Evaluation, 2006); secondly that as Hiligsmann *et al.*, (2013) claim, misunderstanding of generated ideas is common; finally as Mouffe, (1992) argues a disadvantage of a focus on consensus is that it can remove the opportunity for more varied solutions meeting individual needs

One of the challenges of the initiatives generated in the second cycle was that by my definition they were not ‘quick – wins’. Maclachlan, (1996, p.147) identifies the importance

of properly framing the question in NGT and ensuring that terms are “unambiguous.” I see now that I could have been clearer in this regard. However I also realise that students were not privy to ION’s “organisational knowledge” (Nonaka and Takeuchi, 1995) and therefore would not necessarily have known how easy or otherwise it would be to implement such initiatives.

Another interesting aspect of cycle 2 was the resistance I faced when discussing proposed project initiatives with internal academic staff. In contrast to my commitment to embrace and implement improvements to support students, a number of staff were less enthusiastic and some believed that such changes may actually be detrimental to the development of core nutritional therapist skills such as problem-solving, independent thinking and autonomous working.

This incident together with the challenge created by different understanding of ‘quick win’ initiatives, highlighted the extent to which our thinking is shaped by our unique contexts and experiences and reminded me that we all have unique meaning perspectives (Mezirow, 1985). My thinking had changed as a result of my exposure to the participants’ study experience together with my desk-based review of online learning literature. On the other hand, the participants and the staff all had different perspectives based on their experiences and knowledge. This observation generated further reflection on issues of power and participation which are explored in the discussion below

5.7.3 Cycle 3 – Format and Resources

5.7.3.1 Planning

In the third and final action set, twelve ideas were put forward (see appendix 11). As only three participants were available at the end of the session three for voting, the candidate ideas were opened up to all participants for voting. In total five participants voted (three of whom were in attendance during voting and two of whom voted subsequently). Since voting resulted in two clear priorities with all other ideas receiving one vote, the following two initiatives were taken forward for action

1. Clearer reading list with more guided/ targeted reading and wider suggested reading for interest
2. Additional slide at beginning of lecture slide deck identifying auxiliary resources and associated links

5.7.3.2 Action

As at the time of writing, discussions have been held internally regarding the initiatives identified from cycle three and agreement to make these changes has been negotiated. Given the nature of these initiatives, action will be taken to start from the start of the next semester (September) for both cohorts. Action from cycles one and two continues and the questionnaire on meet – up preferences has been distributed to the February group with fifteen responses received.

5.7.3.3 Observation and Reflection

One specific observation of the third cycle was the increased willingness of some of the most engaged participants to take on action. In this cycle, participants got involved in

organising a social component of a planned attendance day and sent messages via WhatsApp and email to encourage other students to complete the questionnaire on study and meet – up preferences. This points to an increased confidence amongst participants perhaps generated by growing familiarity and trust within the group.

Interestingly however, although some participants took on more action and started to demonstrate *practical knowing* (Heron, 1996), overall student engagement in the project appeared to wane with only two participants fully in attendance for the final session (one could not hear and another left early). Similarly a marked decline in responsiveness to project – related emails was observed. Since the students still actively engaged were all from the February cohort, it became challenging to maintain my ethical commitment of fairness and inclusiveness to both groups. A September cohort student reminded me of this following an email sent to participants about a February cohort attendance day. I was then required to rectify this by arranging another day for the September group. This incident illustrates what Hilton and Hilton (2017, p.92) describe as “the messy nature of practitioner research”

McArdle, (2008) notes that participants may withdraw their involvement both covertly and overtly ahead of the formal end of a group inquiry. In my project, the decline in engagement could be seen particularly from the students who claimed in interviews to be more satisfied with their experience (scored 5 or 6 on Likert scale) when interviewed, whilst the less satisfied students (4 or below) continued to be similarly engaged. This ‘withdrawal’ can perhaps also be explained by the technical difficulties in group two which prevented some students from participating in the process and arguably made the session less engaging for others. It could therefore be postulated that given these circumstances, only those students with a strong vested interest in the project (i.e. those least satisfied with their experience) were prepared to persevere with the process. It also highlights the fragility of group inquiry which can so easily be derailed. The mixed experience of the third cycle therefore supports McArdle’s (2008 p.613) observation, that “some groups really get on with inquiry as they get out.”

5.8 Discussion

This project identified *Peer Interaction, Support and Guidance* and *Format and Resources* as important aspects of the online experience. This conclusion supports other research in this area which has reported similar results. (Bollinger, 2004; Sher, 2009). One interesting finding from this study was that some students appear to be more satisfied with their learning experience than others. This discussion will therefore explore the possible reasons for this and will reflect on the issues of participation and power faced in implementing initiatives to address these issues in phase two.

5.8.1 Why were some students more satisfied than others with their online experience?

An analysis of the overall participant satisfaction scores shows that students from the September cohort appear to be more satisfied than students from the February cohort (see appendix 17). This may be explained in part by their newness to the programme (2 months at time of interview) and by some minor differences between the September and February experience (see appendix 20). It must however be recognised that only three of the

participant sample were from the September cohort and that due to their small number it is difficult to draw definitive conclusions.

One finding in this study is that students aged 45 or over (five in number) scored consistently lower on overall satisfaction than those who were 44 or below (see appendix 18). These same students were dissatisfied with the level and types of *Peer Interaction*. Four of them were unhappy with the level of *Support and Guidance* available and four of them expressed dissatisfaction with elements of course *Format and / or Resources*. Research on the impact of age in online learning is however limited and shows mixed results. Some studies conclude that older adults are less likely to seek help (Dunn, Rakes and Rakes, 2014) or are less satisfied (Lim, Morris and Yoon, 2009) whilst others have found the opposite or have not observed any relationship between age and study satisfaction and /or perseverance (Artino, 2008; Jan, 2015). It is therefore difficult to draw any firm conclusions on the impact of age in this context.

Studies looking at online and blended learning have found links between satisfaction and aspects such as comfort with technology, perception of success in learning, tutor support, personality and ability to self-regulate and work autonomously (Cole, Shelley and Swartz, 2014). Additionally some studies have found age to be contextually associated with another factor (for example Makoe, Richardson and Price (2008), found a link between age and education level. Although no clear differences in education level were found between satisfied and less satisfied students, one intriguing characteristic of the satisfied students in this study was that they appeared to be competent with technology and / or to have self-regulatory skills and metacognition

“Everyone in my group is really tech-savvy. They're really good with like getting hold of online text books and drop box and all of this kind of stuff. They're quite senior people and... this is like-they're not new to this” P.5

“I'll do the Pomodoro technique so I'm only working 20 to 25 minutes at time before having a break so I don't exhaust myself. Knowing what works is saving so much time...” P.8

This was in contrast to some of the less satisfied students all of whom articulated issues with self-regulation / technology or both.

“I started out with -we did this PDP and I started thinking more about organising myself and doing some timetable and so on, ... but I'm not very organised and I'm not very punctual. Unfortunately it isn't in my genetic set-up” P.9

“If you're not technically brilliant on your computer, when something goes wrong, I just think is that me, is that my computer, or is that RellION” P.7

Another interesting characteristic of the five participants that scored 5 or above for satisfaction on this study was that they had all transferred directly from the ION online Nutritional Therapy Science Access Course (NTSAC). This is in contrast to the less satisfied students, two of whom had not completed the Science Access Course at all and one of whom had completed the course more than five years earlier. Students who had completed

the NTSAC appeared to have well established friendship groups with students they had met on the access course and discussed the advantages of familiarity with the VLE and online learning

“I think if I'd started on the course now fresh having not done the access course, having not had the WhatsApp group it would be a lot harder definitely yes... because I did my degree 20 years ago” P.5

“I'm really glad that I did [the NTSAC] because besides from not having a science-related degree qualification, it's the whole - getting you used to the e-learning environment.” P.3

Interestingly the two students who had not completed the NTSAC course at all appeared to be the most isolated even though geographically many of the satisfied students were much further away from the college including one student in Australia. One of the students who did not do the NTSAC had Recognised Prior Learning for two of the first year modules on the NTDC thus arguably making it even harder for her to connect with fellow students.

5.8.2 Issues of power and participation encountered in phase two

Gaventa and Cornwall (2001 p.73) observe, that one of the aims of AR is to empower participants “through the construction of their own knowledge.” In line with the principles of an AR approach, this project set out to empower first year students through participation in the identification and development of initiatives to improve their experience. In terms of idea generation, the AR process appeared to be very successful with forty eight initiatives identified and clear evidence of student satisfaction with actions taken. Although there was some student action taken, it must be acknowledged that student participation did not meet the desired level and that this in turn may have inhibited the construction of student knowledge to some extent. The issues of competing commitments, inadequate orientation and ownership of the project are noted above, but what is worthy of further discussion is the impact of the underlying power structure.

Hooks (1994) observes that power inequality is unavoidable within education because of the role educators assume in assessing students' work. This arguably creates an environment in which the educator's view or knowledge is seen as being more important than that of other students (Jacobs, 2016). One reason given by students for not taking on action was the idea that initiatives would be taken more seriously if implemented by ION rather than by students. Whilst there is no way of knowing whether this would have been the case within this context, it is not an unreasonable observation given the power dynamics of the organisation

In cycles two and three, it was difficult for participants to take on action, since development of the initiatives required scoping, costing and discussion; in other words action depended on knowledge owned by ION staff. This reinforces the notion that power lies not so much in individuals but in the “positions they occupy vis- a- vis each other” (Gaventa and Cornwall, 2001 p.73.). Interestingly although the project set out to give students more input into their study experience, ultimately practical and commercial considerations still came into play

when evaluating which initiatives to implement. This in turn raises ethical considerations about the appropriateness of such an approach within an educational setting

Costley, Elliot and Gibbs (2010) acknowledge that where AR aims to change practice it is likely to meet with resistance. The observations above coupled with internal challenge to proposed ideas, demonstrates that a limitation of the methodology was that staff were not involved in the action sets. Whilst arguably this would not have been practical within the scope of the project, the decision not to include them removed an opportunity for students to understand the pedagogic rationale underpinning the current course design and to learn from staff about initiatives that had previously been trialled. In turn, staff were denied the benefit of learning directly from students about the issues associated with their experience. Arguably therefore in constructivist terms this approach constrained the creative potential derived from different perspectives, experiences and ways of knowing.

5.9 Summary

This project demonstrated that *Peer Interaction, Support and Guidance and Format and Resources* are all important aspects of a successful online nutritional therapy study experience. The results suggest a link between age and satisfaction as well as links between NTSAC course completion and / or possession of self-regulatory / technological skills and satisfaction.

Using an AR approach to improve student experience appears to be motivational and empowering for students and focuses efforts on areas of importance to them. Although not a specific aim of this project, AR approaches can foster student learning and development (Reason and Bradbury, 2008). Given the short duration of this study it was difficult to draw conclusions regarding the extent to which this occurred. Future projects could therefore benefit from a longer duration to allow more time for induction, participant training and for action and learning to take place in each cycle. Including academic staff within the project team may improve buy-in to implement identified initiatives

In addition to the short duration and my status as novice researcher, other limitations of this project include the small sample size and the split of participants across two cohorts which may have influenced findings. More research is needed to understand the factors influencing student satisfaction with the online experience at ION and to understand the most effective way to work with students and other stakeholders to initiate change. The next chapter will outline the outcomes of the study and will make recommendations based on these findings.

6. Outcomes and Recommendations

6.1 Outcomes

This project had two aims namely to 1) explore the experience of first year nutritional therapy students at ION and to 2) work with first year nutritional therapy students to develop initiatives to improve the online experience. The objectives for the project were to:

1. To identify the key factors impacting on personal experience of course delivery
2. To understand potential perceived disadvantages of the online experience versus the attendance experience of students in their first year at ION
3. To co-create with students, initiatives designed to improve the online student experience
4. To evaluate with students the impact of implemented initiatives and the project process on their online experience and to adapt initiatives / trial new initiatives as appropriate

6.1.1 Outcomes phase one – benchmarking

It is felt that the benchmarking process at phase one enabled an in depth exploration of the first year online nutritional therapy experience. The interviews facilitated the identification of the key factors impacting personal experience of course delivery. This was helped by the slightly larger sample size than anticipated (10 participants compared to the proposed sample of 6), the diversity of the sample (see appendix 16) and the cooperation of the students who shared a large amount of valuable experience about their experience. Insights gleaned through phase one have already helped to facilitate discussions and activities about new ways to support students. The recent ‘scaffolding’ (Vygotsky, 1978) workshop designed to develop a series of tutor support emails at key points during the study journey is a recent example

6.1.2 Outcomes phase two- Action Research

The AR approach in phase two enabled me to work with first year nutritional therapy students to co-create initiatives designed to improve their online experience. In total forty eight initiative ideas were generated across the three group sessions. Due to the short timescales of the project, only a limited number of initiatives have been implemented to date and further evaluation will be needed at a later stage to fully understand the extent to which implemented initiatives have improved the online experience.

One disadvantage of the overall approach was that it did not allow for students to identify their top three initiatives overall. Additionally the process of developing and implementing initiatives could arguably have been improved through more discussion ahead of the voting process and by including other academic staff within the action sets. This would have enabled the incorporation of different perspectives on required improvements and would perhaps have made it easier to obtain internal buy-in to implement changes. It was also not possible within the time-scales to adapt initiatives / trial alternatives. Notwithstanding these disadvantages of the approach, feedback from the final action set, participant emails and the end of project questionnaire suggest that even within the tight timescales the

approach was successful at realising some perceived improvements particularly for some of the previously less satisfied students

“We are already seeing some of our ideas being implemented as a result of the sessions and they have made a big difference already e.g. the invite to the one day in-person session and putting tutor's contact details at the top of the ReLION page has already had a positive impact” P.8.

“the clearer call times and webcams for faculty is already a better experience, I'm looking forward to the face to face day and I feel much more engaged with the college rather than just the course” P.2.

Given the importance of the student experience to ION and our students, the evaluation work and adaptation / introduction of initiatives will continue outside of the scope of the formal project.

Although not a specific aim of the project, an AR methodology aims to empower participants and to develop specific skills such as peer collaboration, increased reflection and problem-solving (Feldman, 2007). Evaluating the extent to which a project of this nature may have developed such skills is challenging, particularly within an educational context where other activities are also designed to contribute to similar skill development. Feedback from the end of project questionnaire does however give some indication of the learning that took place throughout the process.

“The peer to peer collaboration opportunities [were useful] as you don't know whether your idea would work well in isolation so being able to have real-time feedback was helpful” P.8

“It is always helpful to learn about other people's experiences and views” P.7

From a personal perspective then the study has facilitated learning in a number of ways. This is discussed in the reflection section below

6.2 Recommendations

Based on the findings of this study a number of recommendations are made for online nutritional therapy course providers in order to improve the experience of their online students. Some of these recommendations may also be transferable to similar courses in other higher education settings.

6.2.1 Curriculum design

Peer interaction has been shown to be important for student motivation and enjoyment as well as the development of key skills such as problem solving, critical thinking and self-confidence (Worm and Jensen, 2013). Given this, curriculums should be designed to encourage peer interaction, with consideration given to activities and assessments requiring group work at an early stage of the programme

6.2.2 Induction

The induction process should be refined to help online students to connect and build relationships with other online students. Students should be encouraged to attend in

person, but if this is not possible then support should be given to help students to connect with other like-minded students. Extra attention should be given to students entering at a different point to other students and / or who are taking a course at a different pace. Students should also be inducted into and encouraged to use online collaboration tools such as Skype for Business, Microsoft Teams and Drop Box to facilitate collaborative learning

6.2.3 In-person and synchronous virtual sessions

More optional meet up opportunities should be arranged for both learning and social purposes to enable students to develop relationships with each other and with faculty and to have meaningful discussions about curriculum topics. This may help with motivation, retention and learning and make it easier for students to reach out to other students and staff when they need help.

6.2.4 Academic staff presence

Academic staff should use non-verbal 'immediacy' behaviours (Mehrabian, 1971) such as initiating discussions, providing 'scaffolding' posts (Vygotsky, 1978), using questioning techniques, using first names and demonstrating attentiveness to help motivate and develop students and to build their trust. Additionally the use of video and or written online staff profiles may further help in this regard.

6.2.5 Strong and clearly communicated support structure

Student support should be a priority and support mechanisms should be clearly communicated with support staff reaching out proactively to students. Consideration should be given to the provision of personal tutors to support students throughout the course and / or to the provision of small group tutorials at regular intervals throughout the programme. The provision of IT support should also be considered

6.2.6 VLE structure and organisation

The structure and format of the VLE should be reviewed to ensure that organisation and labelling of resources is logical.

6.2.7 Resources

More interactive elements such as quizzes and games should be incorporated to embed learning. Resources associated with lecture recordings should be clearly identified, easily accessible and logically located. Reading lists should provide more specific guidance on important chapters

6.2.8 Action Research Recommendations

Future educational AR should be of longer duration and should include a mix of both students and academic staff to enable projects to benefit from a variety of perspectives and to give academic staff a deeper insight into the challenges facing students

One of the most important benefits of a practitioner based researcher is the practitioner learning generated by the project. In the final chapter I will now reflect on what I have learned as a result of this inquiry.

7. Reflection

Fong Chiu (2006) suggests that reflection on lived experience is an imperative as well as a necessity during and after research. In this section I will therefore reflect on what I have learned through the research process and how this has impacted my personal practice. In order to usefully structure my reflection, I have chosen Pine's (2009) framework. This uses the concept of mirrors, microscopes and binoculars as metaphorical tools to facilitate reflection on action. The mirror is used to expose personal beliefs, assumptions, values and biases. A microscope can be used to view interpersonal experiences and binoculars can help illuminate larger issues illustrating how local matters are shaped by global circumstances and vice versa

Using a metaphorical mirror to reflect on personal beliefs, assumptions and values is vital within a research project in order to expose biases and to facilitate a fuller comprehension of the role of self in knowledge creation (Berger, 2015). Frequent entries in my research journal, discussions with my supervisor and engagement with research literature have enabled me to 'know' myself better leading to a stronger understanding of how my values, beliefs and assumptions influence thoughts and actions taken within the workplace. Such critical reflection is according to transformational learning theory "an indispensable dimension of learning for adapting to change" (Mezirow, 1997 p.9.). My increased personal awareness has enabled me to make changes in the way I operate, to be more attentive, inclusive and respectful of differing perspectives. It has additionally allowed me to become more aware of the assumptions of others and to understand the context in which they have been generated and the way these impact their thoughts and actions

Pine (2009) advocates using a microscope to focus in on interpersonal experiences and to explore contributions made towards outcomes in a specific context. In my context, watching back and reflecting on recordings of interviews and groups enabled me to improve body language and facilitation style as well as to change the timings allocated to different activities within future sessions (single – loop learning) (Argyris, 1976). Reflecting again on the impact of such changes enabled further refinement and 'reflection in action' (Schon, 1984) embedding the development of new practical knowledge in interviewing and group work. The impact of my own first – person reflection could be witnessed through improved second person reflection as group members began to emulate my modelled behaviours of inquiry.

Seen through the perspective of Pine's (2009) binoculars, learning from this project extends beyond specific events and situations into the broader realm of personal skills with wider utility such as analysis, critical thinking, reflection, problem-solving, project management and metacognition which have been enhanced as a result of activity undertaken in this project.

Action research emphasises the importance of the cyclical process of thinking, acting and reflecting. Dewey (1933 p.9) observes that situations which are uncomfortable or problematic often prompt reflection and subsequent learning. Tensions generated by the reluctance of students to participate and the resistance of internal staff to embrace new initiatives caused me to reflect on issues of power and participation. I had set out to

empower students, to give them a voice in an attempt to democratize the development of the student experience. In so doing, I had not considered their desired level of participation or the impact on academic staff whose help and buy-in was imperative to making the endeavour successful. Such a realisation has highlighted the importance of including all key stakeholders at an early stage of any activity designed to bring about change. This double-loop learning (Argyris, 1976) is arguably my most important take away and will I am certain assist me in future organisational enterprises as I apply the reflection from this project to future professional activity.

8. References

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Appendix 1 ION student recruitment 2016-17

Year	Cohort	Year	Mode	Cohort student numbers	%
2017	Sept	Y1	Attendance	69	
	Sept	Y1	Online	54	
	Feb	Y1	Online	26	
	Online	Y1	Online Total	80	54%
	Overall	Y1	Overall Total	149	
	Sept	Y2	Attendance	87	
	Sept	Y2	Online	59	
	Feb	Y2	Online	25	
	Online	Y2	Online Total	84	49%
	Overall	Y2	Overall Total	171	
2016	Sept	Y3	Attendance	61	
	Sept	Y3	Online	34	
	Feb	Y3	Online	15	
	Online	Y3	Online Total	49	45%
	Overall	Y3	Overall Total	110	
	Sept	Y1	Attendance	86	
	Sept	Y1	Online	59	
	Feb	Y1	Online	25	
	Online	Y1	Online Total	84	49%
	Overall	Y1	Overall Total	170	
2016	Sept	Y2	Attendance	61	
	Sept	Y2	Online	34	
	Feb	Y2	Online	15	
	Online	Y2	Online Total	49	45%
	Overall	Y2	Overall Total	110	
	Sept	Y3	Attendance	51	
	Sept	Y3	Online	35	
	Feb	Y3	Online	14	
	Online	Y3	Online Total	49	49%
	Overall	Y3	Overall Total	100	

Appendix 2 ION Student Retention

Cohort	Year	Cohort Start	Mode	Cohort student numbers at start of course	Cohort student numbers as of 10/10/17	Retention
S 2016	Y2	September	Attendance	83	63	76%
S 2016	Y2	September	Online	59	40	68%
S 2015	Y3	September	Attendance	61	37	61%
S 2015	Y3	September	Online	34	14	41%
F 2016	Y2	February	Online	25	10	40%
F 2015	Y3	February	Online	15	1	7%
September attendance overall				144	100	69%
September Online Overall				93	54	58%
February Online Overall				74	25	34%
September and February Online Combined				167	79	47%

Appendix 3- Key points from online Students at Student Staff Liaison Meetings 2017-2018

Area	Issues Raised by Students
Lecture Recordings	Lecture recordings are too long and students unsure when to take a break. Labelling could be improved to help students understand the content of different lectures
Support	Students unsure whether they still have personal tutors.
Support	Students feel that they would like more support when they suspend the course and then return, because as distance learners they feel out of the loop.
Peer Interaction	Students' face difficulty in maintaining an up-to date Facebook group as these groups often contain students who have deferred or halted their studies
Technology	Students would like lecturers to have more training with webinars as there have been some technical glitches that has meant that whole webinars cut out.
Format and Resources	Housekeeping comments at the beginning of lecture recordings are not needed for distance learners and these should be are edited out
Technology	Students experience difficulties navigating RELION
Support	Time taken for tutors to reply on forums is inconsistent
Format and Resources	Students raised the importance of reminding lecturers to repeat the questions in lectures so that these are heard on online recordings for e-students
Format and Resources	When two modules are running simultaneously, e-students find it stressful as e-students find it difficult to start on the second module when the first one is not complete.
Peer Interaction	Students on the eNTDC are not communicating as much as would be desirable
Peer Interaction	Poor level of communication exist between e students and students would like to look at ways to get the students together somehow. All the people met at orientation live far away from each other
Format and Resources	Quite a few students have commented on only having access to the lectures on the Thursday while still having the same deadline as the attendance students
Format and Resources	comments about the editing of the lectures, a few students feel that important discussions are cut off and they miss out
Format and Resources	Sometimes the lecturers forget to repeat the questions asked by the attendance students, so it is harder for e-learners to follow the discussion. It's hard to see the slides with the lecturer view, at times it's blurry and difficult to see where the laser pointer is
Peer Interaction	Support of study group is really helpful / reassuring, and Facebook group works well at sharing information



London, November, 2018

Dear Students,

Re Invitation to participate in research study

I am writing to you today in a slightly different capacity – that of researcher rather than course leader.

As part of my Masters programme in Professional Studies at Middlesex University, I am conducting a research study and would really appreciate your help.

As you may be aware, the global trend within the higher education sector is towards online course provision and online courses are continuing to grow in popularity. In fact, in 2017 at ION the number of students enrolling on the online nutritional therapy diploma course (NTDC) outstripped the attendance course for the first time

Despite the popularity of online course offerings, however, there is evidence to suggest that online students are less satisfied with their learning experience than attendance students are. It is therefore vital to explore what can be done to address this issue.

My research will seek to explore the experience of first year online nutritional therapy students at ION, to identify any perceived disadvantages from studying online and to explore ways in which ION and its students can take action to enrich the online experience. This information will then be used to enhance the experience for online students at ION going forwards

Data for the study will be gathered using personal interviews and a series of group sessions will be used to agree, implement and reflect on actions to improve the online experience. I do hope that you will be able to get involved in this valuable project.

Please contact me at: PW430@live.mdx.ac.uk for more information if you are interested in being interviewed and / or would like to participate in the group sessions.

Paula Werrett



CONSENT FORM

Participant Identification Number:.....

Title of Project: An investigative inquiry into the online nutritional therapy student experience and the potential for enrichment using Action Research

Name of Researcher: Paula Werrett

	Please
initial box	
1. I confirm that I have read and understand the information sheet dated xx for the above study and have had the opportunity to ask questions	1 <input type="checkbox"/>
2. I understand that my participation is voluntary and that I am free to withdraw up to one month after interview or first action set meeting without giving any reason.	2 <input type="checkbox"/>
3. I agree that this form that bears my name and signature may be seen by a designated auditor.	3 <input type="checkbox"/>
4. I agree that my non-identifiable research data may be stored in National Archives and be used anonymously by others for future research. I am assured that the confidentiality of my data will be upheld through the removal of any personal identifiers.	4 <input type="checkbox"/>
5. I understand that my interview and the group sessions will be video recorded and subsequently transcribed.	5 <input type="checkbox"/>
6. I understand that anonymised verbatim quotes may be used in a written report, Publications or conference proceedings	6 <input type="checkbox"/>
7. I understand that not all issues raised in the research will be addressed within the Scope of the study	7 <input type="checkbox"/>
8. I understand that my ethnic data may be used to understand links between ethnic status and the student experience	8 <input type="checkbox"/>
9. I understand that every effort will be made to keep my data confidential but that Confidentiality cannot be completely guaranteed for the action sets due to the Involvement of other participants	9 <input type="checkbox"/>

10. I agree to keep proceedings of action sets confidential
(action set participants only)

10

11. I agree to be interviewed as part of the study

11

12. I agree to take part in the action set groups as part of the study.

6

Name of participant

Date

Signature

Name of person taking consent
(if different from researcher)

Date

Signature

Researcher

Date

Signature

1 copy for participant; 1 copy for researcher;

Appendix 6 – Project Plan

Action	Date																					
	November				December					January				February				March				
	5	12	19	26	3	10	17	24	31	7	14	21	28	4	11	18	25	4	11	18	25	
WC																						
Preparation & validation of questionnaire	█	█																				
Post advertisement on student forum	█																					
Recruit participants for interview and action sets	█	█																				
Interviews			█	█																		
Transcription of recordings					█																	
Analysis of Transcripts						█	█															
Recruitment for action Sets						█	█	█	█													
Action Set –first meeting										█												
Transcription of action set recording										█	█											
Minutes of meeting to be written up										█	█											

	November				December					January				February				March				
WC	5	12	19	26	3	10	17	24	31	7	14	21	28	4	11	18	25	4	11	18	25	
Agreed actions to be implemented																						
Action Set – Second Meeting																						
Transcription of action set recording																						
Minutes of meeting to be written up																						
Agreed actions to be implemented																						
Action Set-Third Meeting																						
Transcription of action set recording																						
Minutes of meeting to be written up																						
Write up																						

Appendix 7- Interview Schedule

Interview schedule: An investigative inquiry into the online Nutritional Therapy Student Experience and the Potential for Enrichment using Action Research

Are you happy to be recorded?

Thank you for agreeing to participate in this study which forms part of my Masters Programme run by Middlesex University. The purpose of the study is to explore the experience of online nutritional therapy students at ION and to see how the experience of individuals studying at a distance can be enriched. So for the purposes of today's interview I won't comment or offer solutions on any points that you might raise, however these will be considered within the context of the research project. If there is anything that you would like a personal response on then do speak to me after the interview.

For the study your personal details will be stored in accordance with The General Data Protection Act 2018. Your contribution will be anonymous and you can withdraw from the study at any time, up to one month after the interview, by contacting me by email at: PW430@live.mdx.ac.uk

Do you have any questions?

Are you happy to proceed?

Demographic data will be collected after the interview questions have been asked.

1. Gender
2. Age 18-24, 25-34, 35-44, 45-54, 55-64, 65+
3. Marital Status
4. Number and ages of children
3. Occupation (Full time / Part Time)

4. Ethnicity

White (North European)

White (South European)

Black

Asian

Chinese / Japanese / other South Asian

Arabic / North African

Unknown

5. Town/City

6. No. of years since studying formally prior to enrolling on NTDC (Online or attendance)

7. Level of last Educational course

1. Could you please tell me about your experience of studying at ION?
Listen and observe whether the following points are raised as well – if not – ask (application and enrolment, induction, ReIION, quality of learning materials, student support, structure of learning

Prompt: can you tell me more about... (particular experience)?
Probe about VLE, Format of course, lecture recordings / streaming, forum communications and activities, student support and peer interaction
2. What aspects of your experience of studying at ION have worked well so far?
3. What aspects have been less satisfactory?
Prompt: what makes you say that ?
4. How does your experience of studying online at ION compare to your expectations of the course prior to enrolling?
Prompt: what makes you say that? Can you tell me more about that?
5. What strategies have you put in place to organise your study / manage your time
Prompt: can you tell me more about...?
6. Could you tell me about the interaction that you have with other students on the course?
Prompt: How appropriate do you feel the level of interaction is with other students? How important is it for you to interact with other students? Whatsapp / Facebook etc.
7. What do you feel about the opportunities for engagement with academic staff at ION?

Prompt: what makes you say that? Can you tell me more about that?
8. In what ways have you personally interacted with academic staff at ION?

Prompt: Can you tell me more about that?

9. What differences do you feel exist between the online and attendance experience?

Prompt: what makes you say that? Can you tell me more about that? Do you feel disadvantaged in any way? If so how?

10. What actions do you think that ION could take to improve the experience of online students?

Prompt: can you tell me more about...? How would that work?

11. What actions do you think that students could take to improve the online experience for themselves and for fellow students?

Prompt: can you tell me more about...? How would that work?

12. In what ways do you think staff and students can work together to improve the course and the student experience (for example through specific activities or initiatives to build interaction amongst students?)

Prompt: Can you tell me more about that? How would that work?

13. Is there anything else that you would like to share about your experience of studying at ION so far?

Prompt: can you tell me more about...?

14. How satisfied do you feel with your experience of studying at ION so far if 1 is as bad as it can be and 6 is as good as it can be?

Extremely unsatisfied	Unsatisfied	Slightly Unsatisfied	Slightly Satisfied	Satisfied	Extremely Satisfied
1	2	3	4	5	6

15. Collect demographics. **Thank you for your participation.**

Appendix 8 – Extract of Thematic Analysis Data

Quest	Sen No.	Sentence	Literal Code	Inferred Code
1	12	I feel like I haven't got a single person that I can - a student, that I can pick up the phone to and say oh my God, what do you think about this , or just have a general chat , which is good.	Lack of chat	Loneliness
1	13	For herbal medicine, I think that's really good	Lack of chat	
1	14	I don't really know how you deal with that.	Lack of chat	
1	15	So, I found that quite difficult	Lack of chat	
1	15	and I feel very isolated	Isolation	
1	16	I'd like to be able to chat to people	Lack of chat	
1	17	I've done quite a few degrees before	Educational experience	
1	18	This is like my third one or fourth, I can't remember	Educational experience	
1	19	But to me, one of the enjoyable things about degrees is just talking about the stuff that you're learning	Lack of chat	
1	19	Not necessarily saying oh, I'm finding this essay really difficult, but wow, this is really interesting, I read about this, what do you think?	Lack of chat	
1	20	That's a nice thing to do	Lack of chat	
1	21	Hearing things that other people have picked up from text books that you might not have seen, we miss out all of that	Lack of Sharing ideas	

Appendix 9 Action Set First Session Plan

1. **General Introduction to the session (5 Mins)**

- Hello and welcome, thanks for agreeing to participate
- Explain that session is part of second stage of Masters Research Project with Middlesex University. Follows on from the Interviews in Stage One
- Summary of research process so far – Interviews transcribed and coded, three key themes identified – **(1) Student Interaction, (2) Support and Guidance (3) Format and Resources**
- In this stage of the research I'd like to explore each of these themes in more depth and agree some actions with the group to address some of the issues identified in stage one (the interviews).
- Caveat that not all ideas will be able to be taken forward (time constraints and resources / logistics but that want to involve you all as much as possible in the decision – making process
- Reminder that session is being recorded and that I will be taking notes

2. **Group to introduce themselves (5 Mins)**

- Can we all introduce ourselves and say which cohort we are studying with – xxx do you want to start?

3. **Ground Rules (5 Mins)**

Confidentiality, no negatives, listening, respecting each other, space to speak, open-minded, positive, participative

4. **Introduction to the theme for the session (5 mins)**

- One of the general themes identified from the interviews was that students felt that there was inadequate peer interaction. Some of you felt that study groups were too big, that study group members didn't communicate enough, were unwilling to share resources ; that it feels uncomfortable to interact with other students that you don't know that well and / or that you can't see
- I'd like to start therefore by exploring

1. How would increased peer interaction influence your enjoyment of the course?

2. How important is increased peer interaction to learning?

Perhaps think back to one of your most enjoyable and useful classroom based learning experiences. What were the ingredients that made it so enjoyable and successful?

5. **Generating ideas for increasing peer interaction.** (5-10 mins)

Now we are going to look at generating some ideas for what ION can do and what you and the other students in your cohorts can do to generate ideas for increasing peer interaction. So what I'd like you all to do is to think of some initiatives that could be implemented either by ION or by students to help facilitate more student interaction. As our group sessions are quite close together it would be good to think of some quick wins as well as some longer term initiatives that might require more evaluation and planning prior to being implemented. So What I'd like you all to do is to spend 5 minutes thinking about this and jotting some ideas down. Then we'll bring all the ideas together

6. Pooling Results (5 mins)

_Go round one by one and collect results. Start first with quick wins and then go onto longer term initiatives

7. Clarifying Ideas (10 Mins)

In a minute we are going to prioritise the ideas but first so what we are all clear on what has been suggested we have an opportunity to ask questions to ensure that we understand what is being suggested. So the idea here is that we don't critique anything just ask questions to illuminate understanding

8. Voting (10 mins)

So now we are going to vote on the ideas that you have generated. In an ideal world we would be in a room with flip charts and post it notes but as we are virtual then we are going to use the chat buttons within GTM and I will record your responses. So can I ask you all to let me know your top and bottom choices from those I've listed for the short term wins

9. Next Steps (5 mins)

So the results are in and based on your voting we have

Xxxx

Xxxx

Xxxx

How many of these do we think can be done before the next meeting?

Who would like to help with these?

10. Wrap up

Fantastic we have a plan. Thank you all so much. So we can all communicate how do you feel about me setting up a specific forum? Would you like a Whatsapp group? Or something else?

Minutes. Next Session. Any Questions

Appendix 10 – Action Set Ground Rules

- Confidentiality
- no negatives
- listening
- respecting each other
- space to speak
- open-minded
- positive
- participative

Appendix 11 – Ideas Generated from Action Sets

Group One Ideas

1. Themed social per semester (Xmas / summer socials) = 2
2. More project work to encourage attendance at ION= 1
3. Career focussed meetings
4. Meetings bringing student from different years and cohorts together=1
5. Discussion session on a topic facilitated by tutor enabling deeper dive =1
6. Brief resume letting people know who you are when available what interested in working on=1
7. Current NT talks on how to approach specific assignment=1
8. Students to help create study groups that work better – time,
9. CA attendance sessions
10. Support buddy from higher year or alumni
11. Event with speaker
12. Facebook group – qualified NT’s posted info on – discussions about it. – client type things or topical issue in the newspaper. Soft drinks, political issues = 3
13. Compulsory contribution at webinars
14. Tutorial to enable discussions – virtual ideally where people can see each other =1
15. Webcam – ensure tutors have it switched on where possible - = 2
16. Regular meetings – live or at ION = 2
17. Induction weekend rather than a few hours – opportunity to socialise
18. Encourage people to form support networks at the induction
19. Follow up call / GTM to embed the friendships started
20. Fresher’s Week / series of sequential activities – social / group work/ icebreakers / experts / head of clinic talk / ex- alumni to speak to / master – classes (Some via virtual video). Invite someone to share a book / article
21. Week before starting back - of second semester – motivational talks / refresher info etc.
22. Live – streams – make more interactive – Questions type in. Raise hands virtually etc.
23. Live – stream – broadcast info to February cohort

Research Group Two Ideas

1. Online tutorials (not assignment focussed). (E.G. Fats)=4
2. Q and A webinar re assignment nearer deadline – move back (either big webinar or smaller group session). More interactive session. Webinars too close together

3. Tutorial Days – Module days **1**
4. Allocated tutor throughout the three years – one on one session to start with, one meet up a year / semester. Pastoral care. More personal 1 -2 – 1 time with year leader / personal tutor **5**
5. Guidance sheet on ML call times on each Module page and what to contact about vs what to put on forum. Provide alternative ways to ask a question from a tutor/ encouragement to contact tutors + Personal Bios – motivations for being tutor / NT. (written and video). **1**
6. More support on CA – 1 or 2 clinic days in college in person **1**
7. Record an actual consultation with online tutorial re how recorded and interpreted the consultation +Watch consultation online and take notes (share how students do things). **2**
8. More practical exercises (CA) –Goal setting
9. Shadowing in Clinic – making it clearer to students
10. Clear answers to questions (not being fobbed off) **1**
11. Presentation Guidelines on each assignment
12. Search button – Can anything be done to improve functionality?
13. Site map / hierarchy

Group Three Ideas

1. Separate handout to go with recordings (instead of slides)
2. Ensure texts are not out of print/ More up to date books =**1**
3. Clearer reading list with more guided/ targeted reading and Wider suggested reading for interest =**4**
4. Links to Youtube videos etc. on a separate page (outside of slides / e-units) – put on last slide=**1**
5. Sort out video links within presentations so that you can get back into the original lectures
6. Thin out e-units / resources and make them more relevant=**1**
7. Quizzes / gaming – linked to lectures to embed learning=**1**
8. Email letting students knowing what resources you need to get ready ahead of watching lectures
9. Additional slide at beginning of lecture saying what resources are needed and where they are – links to the slides = **4**
10. Grouping resources together in a way so that everything easy to find. =**1**
11. Lectures – add more clinical pearls / practical / rationale =**1**
12. More signposting as to where learning is going. Carrot re what the future looks like – motivational glimpses =**1**

Appendix 12 – End of Project Questionnaire

1. What did you find most valuable about being involved with the research groups?
2. What worked particularly well for you and what could have been done differently to improve your experience?
3. What worked best about the format for the group sessions? What could have made things even more effective?
4. Do you feel that your voice was heard and valued in the group sessions?
5. What are your thoughts on the usefulness of initiatives implemented as a result of the project to your student experience?
6. What, if anything has changed for you as a result of participating in the research?
7. What if anything have you learned as a result of participating in the research?
8. How valuable have you found the research project overall

Extremely Valuable	Quite Valuable	Only Slightly Valuable	Not Valuable at all
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9. How do you feel about the experience of studying online at ION currently?
10. What is your name?(optional)

Appendix 13- End of Action Set Research Results

Q1	Participant Number	Responses
Q1. What did you find most valuable about being involved with the research groups?	1.	Having the possibility to voice my opinions and concerns, together with contact with the tutor and other participants
	2.	The opportunity to connect with other students and contribute to making improvements for all
	7.	Being involved in considering changes to improve the student experience
	8.	The peer to peer collaboration opportunities as you don't know whether your idea would work well in isolation so being able to have real-time feedback was helpful
	10	Listening to other people's experiences and their ideas for improvement
Q2. What worked particularly well for you and what could have been done differently to improve the experience?	1.	The webinars and meeting programme and content were very well planned with excellent feedback
	2.	I thought using the webcams on the Skype calls worked well and the voting was good
	7	Remote meetings although the timings (the 7pm ones) were not great for me. However I appreciate they may have been best for others and you cannot please everyone
	8	Nothing the sessions were convenient and with flexible options for remote dial in
	10	Some of the dates / times were hard for me personally, but you have to go with the majority
Q3. What worked best about the format for the group sessions? What could have made things even more effective?	1.	The participants were sadly not always as present as desired, myself included through no fault of the tutor
	2.	I think it was effective. Everyone had the opportunity to talk and vote
	7.	Being able to see everyone was helpful. I am not sure how they could have been made more effective without meeting face to face

	8	Having one mandatory face to face session perhaps- I appreciate with international students, it's not always possible but that's the only thing I can think of. Perhaps right at the start or at the end as a wash up session
	10	To be able to see each person really helped on the webinar as body language can be helpful
Q4. Do you feel that your voice was heard and valued in the group session?	1.	Absolutely. A very successful group of sessions
	2	Yes
	7	Yes, Paula made sure everyone was given an opportunity to contribute
	8	Very much so
	10	Yes I do and I am pleased to have been asked to contribute
Q5 What are your thoughts on the usefulness of initiatives implemented as a result of the project to your student experience?	1	We are already witnessing the results of the research
	2.	The clearer call times and webcams for faculty is already a better experience. I'm looking forward to the face-to -face day and I feel much more engaged with the college rather than just the course
	7	It's great that some initiatives have been implemented already, although students do need to get actively involved to make them work
	8	We are already seeing some of our ideas being implemented as a result of the sessions and they have made a big difference already, e.g. the invite to the one day in-person session and putting tutor's contact details at the top of the ReIION page has already had a positive impact
	10	Very helpful. It would seem that some things have been implemented quite quickly to help students. It would also encourage myself to help in future as I now know my opinion matters. Thanks
Q6. What if anything has changed for you as a result of participating in the research	1.	I feel more valued as a distance learning student and as a result am invigorated and motivated once again
	2.	I feel more part of a college / University than just on a course
	7.	I found year one incredibly isolating and have seriously considered whether to continue with this course. I think the changes would have an impact on any decision I make in this regard

	8	I feel much more reassured that ION are taking on feedback and want to listen to what students have to say to genuinely make a difference to how cohorts study
	10	We have an attendance day which I am really excited about
Q7. What if anything have you learned as a result of participating in the research	1.	Complaining / criticising amongst the groups is only of value if we as students speak out and engage with the faculty. Obvious but forgotten
	2	That you can reach out and make things better
	7.	It is always helpful to learn about other people's experiences and views
	8	How diverse are experiences are and how similar we are in our wants and needs- although we came up with a range of suggestions from different perspectives there were definitely some common themes emerging
	10	That I am not the only person who finds study hard going sometimes and also other people's ideas to improve
Q8 How valuable have you found the research project overall	1	Extremely valuable
	2	Quite Valuable
	7	Extremely Valuable
	8	Extremely valuable
	10	Extremely valuable
Q9. How do you feel about the experience of studying online at ION currently?	1.	With greater positivity and enjoyment than before the research. Thank you Paula
	2	Optimistic although year 2 is definitely harder in content
	7	To date, very isolating
	8	Very happy. Moving into the second year has already been a big step up and I'm feeling thoroughly engaged
	10	I enjoy it very much but would like to take time between each semester to reflect on what I have already learned to enable the embedding process

Appendix 14 – Facebook Proposal Paper

Background

An idea proposed by students within the online research project was a Facebook group to communicate and facilitate discussion on key industry news and areas of interest for students. A 6 month trial is therefore suggested as outlined below

Aim

Using current nutrition issues/news engage student in critical debate, provide a safe space to pose questions and communicate with each other

Objectives

- Set up moderated Facebook page for 6 months. Identify and post a minimum of one news item per fortnight
- Pose questions to stimulate debate across the year groups
- Moderate student postings to ensure suitability
- Monitor student engagement via Facebook statistics and post-trial evaluation survey

Suggested Topic Areas

- Nutrition news (e.g. recent headlines about high fibre and message re sustainable eating)
- Industry news (e.g. from BANT, CNHC and other)
- Links to practitioner podcasts
- Discussion re TC Cases
- Discussion from students re what to expect in year's 2 and 3
- Student arranged get-togethers

Topic Areas out of bounds

- Specific assignments – discussions to be kept to forums
- Moaning about the course and ION!
- Help for personal nutrition issues and friends and family
- Disrespectful comments on other people's posts

Management of Page

PW to be administrator of page during the trial and to approve posts before they go live. Academic staff to be encouraged to contribute. To be positioned as a positive resource to foster learning and development. Posts that are disrespectful etc. or unduly negative will be removed and editing for the thread will be switched off.

Evaluation

Monitor usage by viewing posts and Facebook statistics. Questionnaire to students to evaluate thoughts on usefulness and opportunities for development

Introduction to Questionnaire

Dear student,

As you may be aware, I am currently undertaking some research into the online experience at ION as part of my Masters degree with Middlesex University.

One of the key themes that has been identified so far is that online students would like to collaborate more. Students have fed back that they would like more group discussion and would enjoy the opportunity to meet in person.

It has been identified that one of the barriers to enabling such interaction is an absence of accessible information about if, where and when students work, what their study patterns are, what modules they are doing and whether they would be in favour of meeting up and if so where and when

The research participants feel that this information could be gathered and shared with the cohort and made available via ReIION to all students. Some information would then be used by ION and some by students themselves. This would enable students to collaborate with other students with similar work and study patterns and also enable students and ION to arrange meet ups that work for as many people as possible. The information could also enable study groups to be created that would work more effectively than those in place currently

Questions

Q1. Name.....

Q2. When did you start studying on the NTDC with ION?.....

Q3. What modules are you currently studying?.....

Q4. Where do you live? Nearest town.....Postcode.....

Q5 Where do you work? Nearest town.....Postcode.....

Q6. Please indicate your current working status

- a) Employed.....
- b) Self-Employed.....
- c) Not working
- d) Combination. Please specify.....

Q7. When do you complete most of your NTDC study?

- a) Mostly Evenings
- b) Mostly Daytimes
- c) Mostly Weekends
- d) Other. Please specify.....

Q8. Would you take up the opportunity to meet in person with other students from your cohort?

- a) ION organised Yes.....No.....
- b) Student organised Yes.....No.....

Q9. If Yes, then what would your preferred meet up time be?

- a) Mornings 10.00am until 12.00pm.....
- b) Mornings 11.00am until 1.00pm.....
- c) Afternoons 2.00pm until 4.00pm.....
- d) Evenings 6.00pm onwards.....
- e) Saturday daytime.....
- f) Sunday daytime.....
- g) Other, please specify.....

Q10. Would you travel to meet other students at

ION – Richmond?

- a) Yes
- b) No.....

Q11. Would you travel to meet with other students at a venue in Central London?

- a) Yes
- b) No

Q12. Would you be meet with students at a different location?

- a) Yes
- b) No

Q13. Please indicate your preference for the following ideas (likert scale- Rank 0-5)

- a) ION hosted social – e.g. Xmas drinks
- b) ION hosted Study day on particular topic (e.g, Clinical Analysis) followed by Social drinks
- c) ION hosted extra -curricular talk or session (e.g. career opportunities/ supplement / testing company) and drinks / lunch
- d) Student organised social event
- e) Student organised meet to discuss assignments / group work tasks / key topics etc.

Q14. Would you take up extra opportunities to meet virtually with other students from your cohort?

- a) ION organised Yes..... No.....
- b) Student organised Yes..... No.....

Q15. If Yes, then what would your preferred time for the virtual meet up be?

- a) Weekday daytime..... Please specify preferred time.....
- b) Weekday evening..... Please specify preferred time.....
- c) Saturday daytime..... Please specify preferred time
- d) Saturday evening..... Please specify preferred time
- e) Other Please specify

Q16. Would you take part in the following virtual meet ups (likert scale 0-5)?

- a) ION hosted group session on particular topic (e.g. case study or opportunity to explore a topic covered in lectures)
- b) ION hosted tutorial type session to trouble shoot study issues / pastoral support
- c) ION hosted extra –curricular virtual talk or session (e.g. career opportunities)
Passive.... Active....
- d) Non ION hosted study virtual session to discuss assignments / group work tasks / key topics etc.

Q17. Are you happy to share the information provided above with others in your cohort?

- a) Yes.....
- b) No.....

Appendix 16- Student Satisfaction and Socio-Demographic Data

Research Project Student Satisfaction and Socio-Demographic Data

Participant Number	Cohort	Age	Ethnicity	Location	Marital Status	Working Status	Number of Children at home	Studied NTSAC at ION	Highest previous educational award	Years since last studied (excluding NTSAC)	Overall Satisfaction Level (1-6)
1	Feb	55-64	NE	Romsey	Co-habiting	Part-time	0	Yes (direct progression)	Degree	27	3
2	Feb	45-54	NE	Twickenham	Married	Not employed	2	No	Degree	8	4
3	Feb	35-44	NE	Tunbridge Wells	Married	Gardening Leave	0	Yes (direct progression)	Advanced Diploma L6	1	5
4	Sept	35-44	NE*	Melbourne (Australia)	Cohabiting	Part-time	0	Yes (direct progression)	Masters degree	11	5
5	Sept	35-44	NE	Poole	Married	Part-time	2	Yes (direct progression)	Degree	17	5-6
6	Feb	45-54	NE	Torquay	Married	Part-time	0	Yes (not direct progression)	Foundation Degree	15	3
7	Feb	45-54	NE	Hove	Co-habiting	Not employed	0	No	Degree	0	4
8	Feb	25-34	NE	Bedfordshire	Co-habiting	Employed Full Time	0	Yes (direct progression)	Degree	8	5
9	Feb	45-54	NE	Munich (Germany)	Separated	Not employed	0	Yes	Foundation degree	20-25	4
10.	Sept	35-44	NE	Bedfordshire	Married	Not employed	2	Yes (direct progression)	Degree	15	5

Appendix 17 Satisfaction of February versus September Cohorts

	Satisfaction Score					
	1	2	3	4	5	6
February 18 Cohort						
Participant 1			x			
Participant 2				x		
Participant 3					x	
Participant 6			x			
Participant 7				X		
Participant 8					x	
Participant 9				X		
September 18 Cohort						
Participant 4					x	
Participant 5					x	
Participant 10					x	

Appendix 18 Satisfaction and Age

	Satisfaction					
	1	2	3	4	5	6
Under 45						
Participant 3					x	
Participant 4					x	
Participant 5					x	
Participant 8					x	
Participant 10					x	
Over 45						
Participant 1			x			
Participant 2				x		
Participant 6			x			
Participant 7				x		
Participant 9				x		

Appendix 19 Satisfaction and NTSAC Completion

	Satisfaction					
	1	2	3	4	5	6
NTSAC Completion						
Participant 1			x			
Participant 3					x	
Participant 4					x	
Participant 5					x	
Participant 8					x	
Participant 9				X		
Participant 10					x	
NTSAC Not Completion and / or didn't progress immediately on to NTDC						
Participant 2				X		
Participant 6			x			
Participant 7				x		

Appendix 20 Differences Between February and September Cohorts

Area of Difference	February	September
Live-stream lecture opportunities	No	Yes
Chance to ask questions during live-stream	No	Yes
All lectures and materials up front at beginning of the semester	Yes	No

Appendix 21 – Gatekeeper Letter

03 September 2018

Letter of acceptance

Dear Ethics Committee,

Re: Paula Werrett M00654513OCT

Research proposal: *An investigatory Inquiry into the Online Nutritional Therapy Experience and the Potential for Enrichment using Action Research*

Description:

Paula Werrett is the course leader of the Nutritional Therapy Diploma at ION responsible for the management of the course.

The proposed research will be conducted within the normal academic cycle and job description of the applicant.

Paula will be conducting interviews and running action set sessions with first year online nutritional therapy students (with their consent) in order to explore their experience and to work with them to design initiatives to improve the online experience

The research fits with the Institute's values.

Kind regards



Heather Rosa FHEA FBANT
Dean, Chair ION Research Ethics Committee